

## **Consultant Checklist:**

**Prior to returning contract to Contract Specialist, please make sure of the following:**

- **Has Exhibit A (Rate Sheet) for Prime Consultant and all Subconsultants been attached/submitted?**
- **Have Insurance Certificates (with coverages as noted under Article 6) been attached/submitted?**
- **Is the Contract signed by Consultant?**
- **Have Exhibits C and D been signed by Consultant? Is necessary information requested in Exhibit D- Certificate of Compliance with Laws -been filled out?**
- **Has Consultant prepared three (3) originals for processing? **\*\* See Below****
- **Cost Multiplier Letter for Prime and Subconsultants who have an approved multiplier higher than 2.7 (to be incorporated by Contract Specialist)**

**\*\* If you were asked to return the signed Contract electronically, please prepare one (1) file that contains signed Contract, Exhibit A Rates for Prime and Subs, approved Cost Multiplier Letters (if applicable) and Insurance Certificates for Prime- and EMAIL to [lpignato@massport.com](mailto:lpignato@massport.com) (three (3) originals of signed Contract can be *mailed* to Contract Specialist at any point after execution)**

**\*\*THIS AGREEMENT IS SUBJECT TO BEING UPDATED BY MASSPORT\*\***

**MPA CONTRACT NO.**

*(Project title)*

by and between

**MASSACHUSETTS PORT AUTHORITY**

and

*(Consultant's name)*

for

**PROFESSIONAL SERVICES**

This Agreement shall be effective as of **(Date)**, by and between the **MASSACHUSETTS PORT AUTHORITY** (Authority or Massport), a body politic and corporate established and existing pursuant to Chapter 465 of the Acts of 1956 (Enabling Act), as amended, having a principal place of business at the Logan Office Center, One Harborside Drive, Suite 200S, East Boston, Massachusetts, and **(consultant's name) (Consultant)**, a corporation organized and existing under the laws of the Commonwealth of Massachusetts, with a principal place of business at **(Consultant's address)**, for professional services by the Consultant on a project denominated **MPA Contract No. (No.)**, entitled **(project title and location)**, for which the general Project description is agreed upon by the parties as follows, and more particularly described in Article 1 (Project):

This initial Contract will be specifically for initial programming, feasibility analysis, and preliminary conceptual design. Once this Project goes to the Board for approval, an amendment to this Contract will be prepared for the remaining services. **(TO BE INSERTED IF NECESSARY)**

**Work Order Process.**

The parties acknowledge the need for a flexible procedure to facilitate the timeliest response to as yet undefined, but reasonably anticipated, needs for professional services. The parties agree that the exact scope of services to be performed by the Consultant shall depend upon events that develop

throughout the term of this Agreement. Therefore, the parties agree to define the scope of services with Work Orders, which the Consultant shall prepare and upload to Massport's Project Management Information (PMIS) System "PMWeb". The Consultant agrees to cooperate with the Authority in the preparation of detailed, consecutively numbered Work Orders in accordance with the Guidelines for the Preparation of Work Orders and the Sample Work Order attached hereto as Exhibit F.

Work Orders are intended to be discrete working documents that will provide, in summary form, the background and factual context within which a particular Work element or series of Work elements shall be completed by the Consultant. Each Work Order shall include a detailed scope of services, level of effort, schedule, Exhibit A and related costs. Work Orders shall be construed to be in addition to, supplementary to, and consistent with the provisions of this Agreement.

In the event of a conflict between a particular provision(s) of any Work Order and a provision(s) of this Agreement, the provision(s) of this Agreement shall be deemed to take precedence. However, the provisions of a Work Order shall take precedence over Article 1 of this Agreement with respect to the exact scope of services to be provided under the Work Order. A Work Order may be amended by the parties by a written instrument referencing the identification number and date of the original Work Order that is being amended. An amendment to a Work Order shall be prepared by the Consultant and agreed on by both parties.

### **RECITALS**

WHEREAS, the parties hereto recognize and recite the following facts upon which the covenants and agreements herein are based:

1. The Authority is the owner and proprietor of Logan International Airport, Hanscom Field, Worcester Regional Airport, Black Falcon Cruise Terminal, Conley Terminal, and other facilities and development properties in the Commonwealth of Massachusetts.
2. The Authority also has long-term property interests at various facilities in the Commonwealth, including but not limited to regional Logan Express bus facilities and the Anderson Regional Transportation Center.
3. The Authority is authorized and empowered under the Enabling Act to rehabilitate, maintain, and repair the facilities under its control.
4. The Authority has undertaken a rigorous selection process, including public advertisement in accordance with its Designer Selection Procedures, to secure the highest quality design services for the Project. The Consultant shall be directed and managed by the Authority under the terms and conditions of this Agreement.

5. This Agreement is authorized by Board vote of the Authority dated \_\_\_\_\_. *(if contract amount exceeds \$2,000,000).*

*Or (if contract amount is \$2,000,000 or less)*

5. This Agreement is authorized by delegated authority in accordance with the Authority's internal policies and procedures.

**NOW, THEREFORE**, in consideration of the mutual promises herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Authority and the Consultant agree as follows:

## **Article 1 - Scope of Services**

### **1.1. Basic Services to Be Performed**

The Consultant shall perform professional services provided for in each individual Work Order executed between the parties in accordance with the terms of this Agreement. The Consultant shall be solely responsible for the technical completeness and accuracy of all contract documents.

In accordance with a Work Order, the Consultant shall prepare and submit, as part of the first Work Order, a project management plan ("Project Management Plan") which identifies the work plan and a schedule for the Authority's approval, outlining the activities to accomplish the Work. The Project Management Plan shall establish the framework for the Project, including the organization of participants, responsibilities, decision structure, channels of communication and procedures to be followed in developing the design. The schedule shall establish dates for all Project milestones.

Services may include, but shall not be limited to, conceptual or schematic drawings and outline specifications, preparation of a BIM model and/or Civil 3D (as appropriate), design development or construction drawings and specifications, construction services, resident inspection services, cost estimates and analyses, investigations, reports, value engineering, and energy audits. Consultant may also be required to manage commissioning and closeout of construction contract.

The design services required by the Consultant may also include, but shall not be limited to: (1) review of existing data; (2) field survey and inspection; (3) preparation of a field inspection memorandum; (4) identification and evaluation of existing equipment; (5) development of a project matrix, including criteria related to constructability, reliability, maintainability, life cycle costs, energy efficiency, sustainability, regulatory acceptance and approval, and scheduling considerations; (6) draft and final alternatives reports; (7) design, bid and construction phase services, including resident inspection services (if applicable); (8) coordination with design and construction of other adjacent projects; and (9) other related engineering services.

The Consultant shall prepare for and participate with the Authority in external and internal presentations of findings and implementation functions for the Project.

The Consultant's designs shall be consistent with all FAA applicable Advisory Circulars and other applicable requirements to enable the Authority's ability to maximize federal grant eligibility.

The Consultant shall interact and cooperate fully with the Authority, utility companies, and

governmental agencies, and shall ensure that all requirements and specifications are set forth in the initial evaluations, recommendations, and bid documents. All environmental and public health agency contacts and applications shall be made through the Authority's Project Manager, and only with the approval of the Authority's Assistant Director, Environmental Management. All utility incentive applications shall be made through the Authority's Manager of Utilities.

The Consultant shall assist the Authority's Project Manager in complying with the Authority's Sustainable Design Standards and Guidelines and the Authority's Energy Modeling Standards/Guidelines or (for new or major rehabilitation of buildings greater than 20,000 square feet) with achieving LEED Certification.

The Consultant shall comply with the Authority's Floodproofing Design Guide incorporated herein by reference and found on the Authority's external portal.

The Consultant shall comply with the Authority's Wayfinding Guideline and Sign Standard incorporated herein by reference and found on the Authority's external portal.

The Consultant shall deliver both a hard copy and an electronic copy of each Design Submittal required under a Work Order. Building Information Modeling (BIM) submissions shall be prepared as further described under the Building Information Modeling requirements Exhibit, attached herein as Exhibit H.

Specifications shall be prepared using the latest version of Microsoft Office.

Design documents whose scope includes a signage package shall include sign face layouts created with the most current version of Adobe Illustrator on CDs or uploaded to Massport's Project Management Information (PMIS) System "PMWeb". Font files utilized in the design are required to be submitted. Text is to be preserved in an editable form. The CDs shall, where applicable, include working files created with the most current versions of the following software programs: Quark Xpress, Adobe Illustrator, Adobe Photoshop, and Adobe Acrobat.

The Authority shall copy, reproduce, bind, advertise, and distribute all bid documents at its expense. The Consultant shall be reimbursed for the plotting and reproduction cost (exclusive of sales and use taxes) of all agreed upon submissions, and Bid Documents, if such printing is not done in-house by the Consultant and is done by others. Any other reproduction costs shall be borne by the Consultant at no additional expense to the Authority.

All operations and maintenance (O & M) manuals and other documentation for operation and maintenance of physical plant equipment shall be delivered in both printed versions and on CD in the most current version of the Adobe Acrobat .PDF format.

Design services shall be performed in accordance with the following provisions unless otherwise provided for under a Work Order:

## **1.2. Preliminary Design Phase Requirements**

Upon the effective date of the Work Order prepared for the Preliminary Design Phase services, executed in accordance with the guidelines set forth in **Exhibit F**, the Consultant shall:

**1.2.1.** Develop a preliminary design report (“Preliminary Design Report”) that includes a Design Basis Document (DBD), schematic plans, outline specifications, prioritized construction phasing plan for pedestrian and vehicular control during construction, design exceptions and variances requested, quantity take-offs and construction cost estimates. Meet with the Authority to present the Preliminary Design Report and to solicit comments. Receive and respond to such comments and modify the design documents accordingly. The scope of preliminary design services shall include the following:

**1.2.1.a** Prepare a DBD detailing Project program requirements, design criteria and performance, a description of each major system, including energy and water efficiency design strategies. The DBD shall be updated throughout the subsequent design and construction phases as required.

**1.2.1.b** Prepare preliminary plans and an outline of technical specifications. Prepare a construction cost estimate that includes quantities and unit prices and assures complete compliance with Massachusetts public bidding laws. The accuracy of the plans, specifications and construction cost estimates shall be consistent with the percentage of completion of the submission. Please reference Massport’s Estimating Guidelines incorporated herein by reference and found on the Authority’s external portal.

**1.2.1.c** Prepare an energy simulation model as per the Authority’s latest Energy Modeling Guidelines found on the Authority’s external portal and incorporated herein by reference.

**1.2.1.d** Prepare construction sequencing and staging schedules that take into account the season, traffic, milestones, critical path activities, Authority activities and operations, materials requiring early and/or lengthy procurement, and any temporary relocations and/or construction measures or other confining conditions that may affect the Work. Identify all needs related to construction barriers, special graphic design barriers, length of downtime, temporary provisions and enclosures, public safety and security plan and mitigation, and Contractor's (references to the term Contractor herein shall also include Construction Manager) staging areas. Clearly identify any Work that needs to be done beyond standard construction hours.

**1.2.1.e** Prepare and submit a sufficient number of copies of the Preliminary Design Report in both a written and graphic format to the Authority. Submission shall consist of, at a minimum: inventory of existing conditions, deficiencies uncovered, field notes and calculations, preliminary plans and outline specifications for the items identified above, a construction cost estimate for the Work, and construction schedules that take into consideration Project phasing, Authority operations and other continuing conditions affecting the Work, including any temporary provisions that may be required. Provide electronic files as required hereunder for the Preliminary Design Report.

The Preliminary Design Report shall include a preliminary checklist under LEED or the Authority's Sustainable Design Standards and Guidelines (SDG). The Preliminary SDG Checklist review with the Authority's Project Manager and Sustainable Program Manager shall result in agreement regarding "applicable" SDG performance standards.

**1.2.1.f** The Authority, upon review of the Preliminary Design Report, shall advise the Consultant on the program it wishes to implement to accomplish the Work. The Consultant shall respond promptly to the written comments and/or directions provided by the Authority.

### **1.3. Final Design Phase Requirements**

After receiving approval of the Preliminary Design Report from the Director of Capital Programs and Environmental Affairs, or designee, the Consultant shall:

**1.3.1.** Prepare and deliver two (2) final design ("Final Design") submissions for review and approval. The first submission shall be 60% complete and the second shall be 90% complete. Provide a sufficient number of copies of each submission, which shall include design drawings showing in detail the Work to be performed by contractors, including final plans, drawings, specifications and any other bid documents, such as federal and state wage rates, special provisions and technical specifications, all as required by the Authority to engage construction contractors and comply with Massachusetts public bidding laws. Such submissions shall incorporate all relevant comments and suggestions received from the Authority related to the Preliminary Design Report and each previous submission. Provide electronic files as required hereunder for each Final Design submission.

**1.3.2.** Prepare and submit updates of the energy simulation model as per the Authority's latest Energy Modeling Guidelines found on the Authority's external portal and incorporated herein by reference.

**1.3.3.** Final Design submissions shall include updated LEED documentation or Sustainable Design Standards and Guidelines as required by the Authority's Sustainability Guidelines found on the Authority's external portal and incorporated herein by reference. Checklists and associated backup documentation, including that which is required under the Authority's Energy Modeling Standards should also be submitted, as applicable under Article 1.3.2. hereof.

**1.3.4.** Furnish the necessary plans and specifications in support of applications for non-environmental reviews, approvals, and permits from governmental authorities. Make and pursue application on the Authority's behalf for non-environmental approvals, variances, and permits, including the Authority's insurance carrier and Authority's Department of Public Safety. Consultant shall communicate with external contacts and applications through the Authority's Project Manager with the prior approval of the Authority's Assistant Director, Environmental Management.

**1.3.5.** Prepare all custom utility incentive applications and provide to the Authority. All utility incentive applications shall be made through the Authority's Manager of Utilities.

**1.3.6.** Provide a detailed construction cost estimate in a format(s) acceptable to the Authority and meeting all of its bidding requirements, including estimates of quantities, unit prices, filed sub-bids, and potential subcontracting opportunities for certified disadvantaged business enterprises (“DBEs”), if applicable, for FAA funded projects using Massport’s Estimating Guidelines incorporated herein by reference and found on the Authority’s external portal.

**1.3.7.** Prepare a critical path schedule in Primavera P6 Version 15.1 or later for the implementation of construction phasing, including the identification of critical path elements and milestones using Massport’s Design Schedule Tool Kit and Contract Time Determination Tool Kit incorporated herein by reference and found on the Authority’s external portal.

#### **1.4. Bid Phase Requirements**

After receiving approval of the Final Design from the Director of Capital Programs and Environmental Affairs, or designee, the Consultant shall:

**1.4.1.** Assist Authority in preparation of bid documents for uploading onto its bidding software, BidExpress.

**1.4.2.** Attend a prebid conference and provide advice related to design issues. Prepare and provide the Authority with written responses to specific questions that arise at the conference.

**1.4.3.** Provide a written response addressing all specific questions that arise, and prepare addenda to bid documents, as deemed necessary by the Authority.

**1.4.4.** Assist the Authority in evaluating general bids, including validation of calculations, and recommend in writing to the Authority the award or rejection of bids with appropriate justification. Include in the recommendation a discussion of the Contractor's prior work performance.

#### **1.5. Construction Phase Requirements**

After the execution of construction contract documents, the Consultant shall consult with, advise, and represent the Authority during construction to identify problems with the construction schedule or portions of the Work as construction progresses. The scope of construction phase services shall include the following:

**1.5.1.** Attend bi-weekly/weekly job meetings as deemed appropriate by the Authority and as provided for in a Work Order to observe the progress and quality of the construction work (the “Work”) and to determine if the Work is proceeding in accordance with the contract documents. Identify critical Work items requiring special inspections and ensure that items have been inspected prior to initiating subsequent Work items. Keep the Authority informed of the progress of the Work in order to protect the Authority against defects and deficiencies in the Work. Call deficiencies in the Work to the attention of the Authority and the Contractor in writing, and disapprove or reject Work failing to conform to the contract documents. Prepare and submit written progress reports each week reporting findings.



**1.5.2.** Review and approve construction programming, shop drawings, catalog cuts, samples, and laboratory and mill tests, for conformance with the design concept and compliance with the contract documents. Prepare all supplemental drawings necessary to execute the Work in response to changed field conditions, and advise the Authority of cost differentials.

**1.5.3.** Interpret the contract documents and render decisions (in writing, if necessary) on the requirements of the contract documents, as required. Assess each Project change request and, if necessary, prepare change orders for the Authority's approval and execution. Assist the Authority in the resolution of claims or disputes between the Authority and the Contractor.

**1.5.4.** Certify the validity of the general contractor's partial and final requisitions for payment, including schedules, quantities, payroll submission compliance, payments to sub-contractors, and other requirements. Such certifications by the Consultant shall constitute a representation to the Authority, based on the Consultant's observation, that the Work has progressed to the indicated point, and that to the best of the Consultant's knowledge and belief after due inquiry, the Work is in accordance with the contract documents (subject to evaluation upon substantial completion, the results of subsequent tests called for in the contract documents, and specific qualifications stated in the certificate), and that the Contractor is entitled to payment in the certified amount. The Consultant shall not certify the final payment requisition until an inspection for final completion has been performed in accordance with Section 1.5.6 and the Authority has acted affirmatively on the Consultant's recommendation that the Work be accepted.

**1.5.5.** Review the Contractor's construction schedule on a monthly basis, as a minimum or as required, to determine the integrity of critical sequencing relationships and the cumulative effect on the schedule of all adjustments and changes to Work already incorporated in the contract documents.

**1.5.6.** Inspect the Work with the Authority's Director of Capital Programs and Environmental Affairs, or designee, to determine substantial completion and final completion in accordance with the contract documents. Recommend final acceptance of the Work and provide reports, as requested by the Authority, concerning the condition of the Work and the performance of the Contractor. Final Reports will include post-construction documentation demonstrating compliance with LEED, or the Authority's Sustainable Design Standards/Guidelines and the Authority's Energy Modeling Standards, as applicable.

**1.5.7.** Prepare a complete set of Record Drawings from the Resident Inspector's and Contractor's as-built drawings and certify as to the accuracy of such Record Drawings, all in accordance with the requirements of this Agreement, and the Authority's latest BIM Guidelines found on the Authority's external portal, and incorporated herein by reference. Failure by Consultant to submit a complete set of Record Drawings shall result in withholding of the dollar value of the sum set forth in the construction administration work order ("Construction Administration Work Order") or design work order issued by the Authority.

**1.5.8.** Perform an orderly close-out of the Work, including advice to the Authority concerning the details of disputes and claims, and testing of systems and equipment. Prepare and submit the required DCAMM Contractor's evaluation form. The DCAMM Contractor's evaluation form shall be reviewed and approved by the Authority prior to submittal to DCAMM. If appropriate, prepare a final change order for approval by the Authority.

#### **1.6. Resident Inspection Services (if applicable)**

If resident inspection services are authorized in a Work Order, such resident inspection services shall be provided to allow for more consistent and extensive site representation than specified in Section 1.5 in order to provide further protection for the Authority against defects and deficiencies in the Work. Resident inspection services shall be provided by a resident inspector, and additional inspectors or specialists shall be provided by the Consultant, as necessary, depending upon the amount and type of Work under construction at any given time. The Consultant shall provide all office equipment, including calculators, computers and any other incidental items necessary for the complete support of field personnel at no additional expense to the Authority. The scope of resident inspection services shall include, but shall not be limited to:

**1.6.1.** Review documents and submissions prepared by the Contractor pertaining to scheduling, and advise the Authority as to their acceptability.

**1.6.2.** Attend pre-construction and construction job conferences and, if required, prepare and distribute minutes of such meetings.

**1.6.3.** Coordinate submission and processing of shop drawings, samples and test results.

**1.6.4.** Observe the Work to determine conformance with the contract documents and to ascertain the need for correction or rejection of the Work, uncovering of the Work for inspection, or for special testing.

**1.6.5.** Verify the performance of tests in accordance with the contract documents, and assure proper record-keeping and reporting of all test results.

**1.6.6.** Maintain orderly and complete job site records, including but not limited to, change requests, change orders, interpretations, and program reports. Keep a complete Project diary recording resident inspection activities; weather conditions; nature and location of Work being performed; verbal instructions and interpretations given to the Contractor; any occurrence or Work that might result in a claim for a change in contract sum or contract time; and a list of visitors and their titles, and the time and purpose of their visit. Verify Contractor's assembly of guarantees, warranties, certificates, O & M manuals and the like, and assure delivery of such to the Authority promptly upon completion of the Work. Review Contractor-prepared material for use in training maintenance personnel. Participate in training sessions to ensure adequate training is provided.

**1.6.7.** Review all Contractor requisitions for payment, making notations and recommendations as required regarding Work completed, quantities used, and observations respecting Contractor's compliance with manpower requirements.

**1.6.8.** Assist in preparing lists of incomplete, defective, unacceptable or corrective items of Work prior to the inspection for substantial completion. Revise such lists prior to the final inspection and verify satisfactory completion or correction of all such matters prior to recommendation of acceptance of the Work for final payment.

**1.6.9.** Assist in the preparation of all change orders and documentation of actual construction costs of the several Work items. Assist in the analysis and resolution of claims and disputes, as required.

**1.6.10.** Review and comment on Contractor's and subcontractors' schedule of values for accuracy and level of detail to assure accurate progress reporting.

**1.6.11.** Review and comment on Contractor's daily reports for accuracy and completeness.

## **1.7. Request for Information (RFI)**

The Consultant shall respond to RFIs as follows based on the following prioritization from the Contractor:

- High – Consultant to respond within 1 to 2 calendar days.
- Medium – Consultant to respond within 2 to 5 calendar days.
- Low – Consultant to respond within 5 to 10 calendar days.

## **1.8 Submittals**

The Consultant shall respond to submittals as follows based on the following prioritization from the Contractor:

- High – Consultant review of 1 to 5 calendar days.
- Medium – Consultant review of 5 to 10 calendar days.
- Low – Consultant review of 10 to 15 calendar days.

## **1.9. Project Commissioning**

**1.9.1.** The Consultant shall assist the Authority during design, construction, and post-construction phases to ensure that the Authority's new and existing facilities are well-designed, complete, properly functioning, and economical to operate and maintain, and that the Authority's staff has adequate training and documentation to safely and efficiently operate and maintain its facilities. Services shall include, but not be limited to, design review, commissioning specification

development, development and observation of testing plans, systems documentation, warranty inspections, training, retro-commissioning, and “LEED 2009” (or current version) requirements. LEED and sustainable design criteria shall be evaluated by the Consultant as part of the commissioning process.

#### **1.10. Bulletins**

Bulletins are to be issued by the Consultant to represent all potential modifications to contract documents. All bulletins must include the Authority’s standard bulletin cover sheet, attached hereto as **Exhibit E**, an approximate cost estimate for the corresponding scope, and if requested a model generated list of quantity takeoff changes.

#### **1.11. Inspection Reports**

The Consultant and all subconsultants will be required to issue weekly inspection reports for work performed according to the Authority’s standard report format and process.

#### **1.12. Non Conformance Requests**

The Consultant and all subconsultants will be required to issue non-conformance requests for non-conforming work in a form approved by the Authority.

### **Article 2 - Term, Commencement and Completion**

#### **2.1. Term**

This Agreement shall commence on (“ the Effective Date”) and remain in effect until the completion of the Consultant’s services hereunder, unless extended or terminated by the Authority in accordance with this Agreement. Individual Work Orders shall have separate commencement dates for the related scope of Work.

#### **2.2. Commencement of Services**

The Consultant shall commence services in accordance with individual Work Orders. The Consultant shall not be entitled to any compensation for services performed unless and until it has received a Work Order executed by the Authority authorizing such services.

#### **2.3. Time of the Essence**

Time is of the essence for achieving Substantial Completion of a Work Order, and the completion dates under each Work Order may be extended only as provided in this Agreement. Upon receipt of an approved Work Order, Consultant shall perform and complete the services in accordance with the schedule agreed upon and set forth in the Work Order (if applicable). The Consultant’s services will be provided as expeditiously as is consistent with professional skill and care and the orderly progress of such services.

### **Article 3 - Changes, Coordination, Design Requirements and Other Provisions Related to Performance of the Services**

#### **3.1. Changes and Additions to the Scope of Work and Scope of Services**

The Consultant shall continually review the projected construction cost and, regardless of the stage of the Work, shall report immediately in writing to the Authority any conditions which would warrant a change in the scope of Work, budget, method of investigation, and/or the Consultant's scope of services. The Authority reserves the right at any time to make changes or additions to the scope of Work, and/or the Consultant's scope of services. Such changes shall be authorized in writing by the Authority. The Consultant shall not perform any services beyond the scope of this Agreement, or subsequent amendment, without written approval of the Authority. Whenever the Consultant or any of its approved subconsultants or independent contractors receives a request to perform services from the Authority that the Consultant considers to be a change or addition to the services hereunder, and that will cause an increase in the cost of the performance of such services, the Consultant shall so notify the Authority within ten (10) business days of the receipt of such a request; otherwise, any such adjustment in the price or claim for additional compensation shall be deemed waived, and the Consultant shall not be entitled to any additional compensation for such change or addition.

#### **3.2. Standards of Performance**

The Consultant agrees that the services provided hereunder shall conform to the high standards of care and practice exercised by organizations engaged in performing comparable services; that the personnel furnishing said services shall be qualified and competent to perform adequately the services assigned to them; and that the recommendations, guidance and performance of such personnel shall reflect such standards of care and practice.

The Consultant shall demonstrate to the Authority's project manager the presence and implementation of quality assurance. The Consultant shall identify individual(s) responsible for bid document review and cost estimating, as well as methods utilized to determine the completeness and accuracy of drawings, specifications (including filed sub-bid requirements), cost estimates, and other data and documentation. Resumes for such individuals shall be provided if requested by the Authority.

The Authority reserves all rights and remedies provided hereunder or by law, including but not limited to its rights to seek payment by or reimbursement from the Consultant, for incurred costs resulting from design errors and omissions.

#### **3.3. General Design Requirements**

The Consultant acknowledges that it is familiar with and has a working knowledge of the Massachusetts provisions relating to competitive public bidding, including, but not limited to M.G.L. Ch. 149, Section 44A-44J, M.G.L. Ch 149A, Sections 1-21, and M.G.L. Ch. 30, Section 39M, and agrees that all design submissions and contract bid documents shall conform to the appropriate statutory requirements. The Consultant shall, upon request, furnish the Authority the name and

experience of the individual(s) with such statutory bidding experience and provide resumes, if requested. The Consultant agrees that if, in the opinion of the Director of Capital Programs and Environmental Affairs, the Consultant does not clearly demonstrate the expertise necessary, the Consultant shall engage, at its own expense, competent personnel subject to the approval of the Authority. The Authority's approval of such personnel shall not relieve the Consultant of its duties and obligations under this Agreement.

### **3.4. Compliance with Laws**

Consultant shall, at its sole cost and expense, comply with and shall require all of its directors, officers, employees, agents, suppliers, sub-consultants, independent contractors, volunteers, members, guests, invitees and vendors (collectively, "Consultant Responsible Parties") to comply with all present and future laws, statutes, ordinances, rules and regulations, orders, judgements, decrees, licenses, and permits including all "Environmental Laws", of all applicable federal, state and local governmental or quasi-governmental authorities, subdivisions, departments, agencies and the like, including the regulations of the Authority codified at 740 CMR 1.00 et seq., the directives of the Authority's Airport Director, or his/her designee, and the rules, regulations and requirements of the Authority's and Consultant's insurance underwriters which are provided in writing to Consultant. Consultant shall promptly pay all fines, penalties and damages that may arise out of or be imposed because of its failure to comply with the provisions of this Article. The term "Environmental Laws" shall mean any and all federal, state and local ordinances, statutes, laws, regulations, rules, orders, judgements, decrees, licenses, permits and policies, as may be amended, relating to the natural environment including but not limited to laws regarding clean air, clean water, storm water and/or sewage disposal, transportation and/or disposal of soil and hazardous substances, materials or wastes, and federal or state environmental reporting or oversight.

The Consultant and any person for whom the Consultant is legally responsible, including without limitation, its employees, subconsultants, suppliers, independent contractors, agents, and the employees of each, who are to be employed at the Project site shall have successfully completed a 10-hour OSHA-approved course in construction safety, referred to as the OSHA 10 course prior to entering the Project site. Each of the aforesaid persons must carry his/her OSHA 10-Hour Card when on the Project site. Any of the aforesaid persons found on the Project site without proof of successful completion of the OSHA 10 course may be removed from the site.

In addition, to the extent applicable to the Work, the Consultant shall perform the scope of services under this Agreement and design any site and facility improvements in strict compliance with all laws, regulations and codes relating to accessibility for people with disabilities, including without limitation, the Americans with Disabilities Act of 1990 ("ADA", 42 U.S.C. sections 12101 et. seq.), the ADA and ABA Accessibility Guidelines for Buildings and Facilities ("ADA/ABAAG"), the regulations of the Massachusetts Architectural Access Board ("MAAB", 521 CMR 1.1 et. seq.) The Consultant further recognizes that the Authority is a public entity subject to Title II of the ADA, and to the extent permitted by law, the Consultant shall assume the Authority's ADA obligations along with the Authority's obligations under the MAAB regulations and any other accessibility laws and requirements relating to the Consultant's performance of its services under this Agreement.

### **3.5. Prevention Through Design**

The Consultant shall perform its scope of services to reduce the risk of occupational injury and illness by integrating decisions affecting safety and health in all stages of the design process. Hazards to be addressed are, but not limited to: falls from height, electrical hazards, confined space entry and caught between hazards. The foregoing responsibility is limited to safety concerns pertaining to the finished Project, and does not extend any responsibility to the Consultant for safety procedures or programs in connection with the means and methods of construction for the Project.

### **3.6. Construction Cost Estimates**

The Authority shall rely on the Consultant's Construction Cost Estimates to determine whether it desires to go forward with all or part of the construction, and the Consultant shall engage competent and experienced professionals throughout the term of this Agreement in order to assess construction cost and budget impacts. The Consultant, upon request, shall furnish the names and experience and resumes, if necessary, of the professionals responsible for providing estimating services. Estimates which indicate that construction cannot be accomplished within the established budget shall be addressed in a manner satisfactory to the Authority in order to bring the Work within the established budget at no additional cost to the Authority. Further, should the bid amount of the lowest responsible and eligible bidder exceed the Consultant's final estimate by more than ten percent (10%), the Authority has the right to instruct the Consultant to re-design the whole or parts of the Work at no additional cost to the Authority, until a low responsible and eligible bid is received within ten percent (10%) of the Consultant's final estimate.

### **3.7. Right of Review**

The Authority shall have the right, at any time and in its sole discretion, to submit for review to consulting engineers or consulting architects engaged by the Authority for that purpose any or all parts of the scope of services performed by the Consultant, and the Consultant shall cooperate fully in such review at the Authority's request.

### **3.8. Access to Facilities and Use of Equipment**

The Consultant, during the course of its services, shall coordinate its access to and inspections of the site with the Authority. Interruptions or interference with the tenants' operations shall be allowed only with approval in advance by the Authority. All requested access shall be made a minimum of forty-eight (48) hours in advance. Where the Consultant requires access to secured areas, and where the Authority determines that the Consultant's personnel require security badges, the Consultant shall provide the Authority with written justification for such request, and shall fully cooperate and comply with all Authority requirements, including without limitation those set forth in Exhibit G, attached hereto, as all such Authority requirements may change from time to time.

When entering onto the Authority's property in connection with the Project, the Consultant and any person for whom the Consultant is legally responsible, including without limitation, its employees, subconsultants, suppliers, independent contractors, agents, and the employees of each, shall wear (100% utilization): hard hats, safety glasses with side shields, proper work shoes and proper work clothing. The Consultant shall assess the Project site for existing and potential hazards to which

employees and other personnel may be exposed during routine and non-routine work tasks to minimize exposure to hazards and reduce injuries. After performing a Personal Protective Equipment (PPE) assessment, the Consultant shall provide such personal protective equipment and safety equipment for all affected employees and other personnel. Additional items may include: high visibility clothing when exposed to any vehicle traffic, hearing protection devices, respiratory protection devices, fall protection devices, temperature protection equipment, hand protection equipment, life-lines and safety harnesses, full-face protection devices, special illumination equipment, U.S.C.G. approved life jackets when working over/near water or any other special equipment/devices required to be worn in their work. If the Consultant chooses to utilize PPE, the Consultant shall ensure that the equipment is provided, used, and maintained in a sanitary and reliable condition wherever it is necessary, and shall make employees and other personnel aware of how to select appropriate PPE, wear, maintain, and store PPE, and of the limitations of the PPE they are using.

If the Consultant requests, and the Authority permits (in its sole discretion), the use of the Authority's equipment in furtherance of the services under this Agreement, the Consultant shall assume all risk of loss, damage and injury to the Consultant, any of its employees, agents, subconsultants, independent contractors, or suppliers, and any property of any of the aforesaid, and hereby agrees to release, indemnify, defend, and hold harmless the Authority, its members, officers, and employees from and against all liabilities, claims, losses, damages and expenses against the Authority, its members, officers, or employees for any injury to or death of any person, including the Consultant, and/or damage to any property arising out of the Consultant's use of said equipment. Nothing herein shall require the Authority to consider or permit the Consultant's use of the Authority's equipment in connection with this Agreement.

### **3.9. Inspection Aids/Equipment**

The Consultant shall provide inspection aids and/or equipment required for the examination of any site, as well as any subconsultants or contractors required to perform inspection services. All materials and/or surfaces removed or altered in any manner shall be restored, subsequent to inspection, to the condition that existed prior to inspection.

### **3.10. Lean Construction**

The Consultant will participate in and use Lean approaches and tools to work collaboratively with the Authority to design and construct the Project in the most efficient manner possible that meets all of the Authority's values for the Project. The Lean requirements are set forth in **Exhibit J**, attached hereto.

### **3.11 Building Information Modeling**

The Consultant shall comply with the requirements of the Authority's Building Information Modeling (BIM) Guidelines, as further described in Exhibit H.



**Article 4 - Use of Subconsultants.** Consultant shall not use any subconsultants or independent contractors without the prior written approval of the Authority.

#### **4.1. Approved Subconsultants**

The Authority hereby approves the Consultant's use of the following subconsultants. Notwithstanding such approval, the Authority reserves the right to require the Consultant to employ different subconsultants to perform any type of services required for the successful completion of any services under this Agreement.

**(Consultant's Name) has proposed (Percentage of DBE Proposed) of DBE participation goal under this Contract**

\*List subconsultants here

The Authority expects the Consultant to engage the above subconsultants for the services described above. The Consultant shall immediately notify the Authority in writing of any requested changes. No substitution or elimination of such subconsultants, alteration of the services listed above, or use of additional subconsultants shall be made without prior written approval of the Authority.

#### **4.2. Consultant's Personnel, Subconsultants**

The Consultant shall employ qualified and competent personnel to perform the services under this Agreement, particularly specification writers, building code experts and professionals experienced in construction cost estimating. The Authority shall have the right to approve such personnel prior to their engagement and to require the removal of any employee of the Consultant, or any employee of the Consultant's subconsultants, who, in the opinion of the Authority, is careless, incompetent, or otherwise unqualified to perform the services hereunder, or whose conduct is in any way considered improper. The Authority's approval of the Consultant's personnel shall in no way relieve the Consultant from its obligation to employ qualified and competent personnel to perform services under this Agreement, and shall not be deemed as an acknowledgement by the Authority that such employees have the necessary qualifications and competence to perform such services. Review and acceptance of such qualifications and competence shall be solely the responsibility of the Consultant.

#### **4.3 Independent Contractors**

The Consultant may utilize the services of qualified and competent personnel as independent contractors (independent contractors) to perform the services under this Agreement, if such services are requested in writing and also approved in writing by the Authority's Project Manager. The Authority shall have the right to require the removal of any independent contractor who, in the opinion of the Authority, is careless, incompetent, or otherwise unqualified to perform the services hereunder, or whose conduct is in any way considered improper by the Authority.

#### **4.4. Consultant's Responsibility for Subconsultants and Independent Contractors**

To the extent applicable, pursuant to Article 4.1 above, the Consultant represents that it has made and will make reasonable investigation of all subconsultants and independent contractors to be utilized in the performance of services under this Agreement to determine that they possess the skill, knowledge and experience necessary to enable them to perform such services. Nothing in this Agreement shall relieve the Consultant of its prime and sole responsibility for the proper performance of the services under this Agreement.

#### **4.5. Key Personnel**

Consultant shall designate {Insert Name} as the Project Manager primarily responsible for the Project (the "Consultant Project Manager"). The identity of the Consultant Project Manager shall not be changed without the prior consent of the Authority. If at any time (and from time to time) any of the following occurs: (i) the Authority becomes dissatisfied with the performance of the Consultant Project Manager, (ii) the Consultant Project Manager shall no longer be employed by Consultant, or (iii) the Consultant Project Manager shall become incapacitated or otherwise be unable to perform hereunder in the sole judgment of the Authority, then, and in any such case, Consultant, promptly so as not to delay the Project, will offer candidate(s) for a replacement for approval by the Authority. Once approved, that person shall be the Consultant Project Manager, serving in accordance with the terms of this Agreement. The Consultant Project Manager shall have primary responsibility for day to day management of the design, engineering and construction administration of the Project, oversight coordination, and management of subconsultants, primary interface with the Contractor, communicating with the Authority on the Project and devoting such amount of his/her personal time and effort to the requirements of the Project as are necessary and/or appropriate to fulfill properly and completely Consultant's obligations under this Agreement. The Consultant Project Manager shall be authorized to act on behalf of Consultant in all respects, and the Authority shall be entitled to rely on that authority. In providing its services to the Authority, Consultant agrees to assign personnel, including but not limited to the Consultant Project Manager, with significant experience and qualifications on projects similar to the Project. Consultant shall not assign any personnel to the Project, whether initially or as a replacement, against whom the Authority may have a reasonable objection. **Exhibit A** lists shall set forth the Consultant's personnel (including all subconsultants) who will work or could potentially work under this Agreement. **Exhibit A**-Consultant's Hourly Rates- includes the names, current titles, and actual current rates as of the effective date of this Agreement. An example of **Exhibit A** is attached hereto. The information in Exhibit A (Consultant's Hourly Rates) shall also be entered into the Excel Template for Invoicing (Page 3-example attached), shall be currently dated and submitted as part of the Consultant's invoice to the Authority.

#### **Article 5 - Compensation**

The overall contract amount for the complete and proper performance of all services required under this Agreement shall be a sum not to exceed \_\_\_\_\_ Thousand Dollars (\$xxx,xxx). The parties acknowledge and agree that it is their intention to incorporate in each Work Order under this Agreement the amount and basis of payments to be made to the Consultant. Payments shall be made on the basis of a lump sum or a "not-to-exceed" price, at the sole discretion of the Authority,

for each individual Work Order in accordance with this Article.

### **5.1. Payments Based on a "Not-to-Exceed" Price**

For the services described in any Work Order based on a "not-to-exceed" price, the Consultant's sole compensation shall be one or more payments computed as a multiple of actual hourly salary attributable to the time each person actually provides services under the relevant Work Order, the total of which payment(s) shall not exceed the "not-to-exceed" price under said Work Order. Time of a principal or employee of Consultant not performing services under a Work Order is not compensable.

For purposes of "not-to-exceed" Work Orders and invoices under this Agreement, the Consultant shall submit to the Authority Exhibit A as follows:

Annual salary increases up to 5% for the categories/classifications set forth in **Exhibit A** shall not require the Authority's prior approval, however, new staff assigned to the Project, along with annual salary increases exceeding 5% shall be proposed in advance to the Authority, accompanied by appropriate supporting documentation, for the Program Manager's approval. The Authority will not pay any annual salary increase to the extent it exceeds 5% and was not approved in advance by the Authority.

**Exhibit B** attached hereto is an authorization by the Authority establishing the Consultant's multiplier, if higher than 2.7. If a different multiplier is approved by the Authority's Internal Auditor after the effective date of this Agreement, such multiplier may be applied retroactively by the Authority.

The following provisions shall govern the calculation of payments based on a "not-to-exceed" price:

#### **5.1.1. Payment to Consultant**

Compensation for the Consultant's employees shall be computed at the employee's actual hourly salary times a multiplier. The multiplier for office personnel shall be limited to 2.7, and the multiplier for resident inspectors or other field personnel shall be limited to 2.3, unless the Authority's Internal Auditor determines that a different multiplier is applicable to this Agreement based upon receipt and review of certified audits to be provided by the Consultant. If a different multiplier is approved, the Authority's Internal Audit Department shall notify the Consultant (or subconsultant) by letter which shall serve as **Exhibit B** to this Agreement. The multiplier shall constitute full payment for all employee benefits, overhead, general administrative costs, profit, and all other unallocated costs and expenses.

#### **5.1.2. Payments to Consultant for Subconsultants**

Compensation for subconsultants shall be in accordance with actual invoices submitted by subconsultants to the Consultant; provided, however, that such subconsultants shall invoice their services in accordance with, and subject to, Article 5.1.1 hereof. The Consultant shall make prompt payments to subconsultants for services satisfactorily performed after receipt by the

Consultant of payment from the Authority for such services.

### **5.1.3. Payment to Consultant for Independent Contractors/Interns/Co-op Students**

Compensation for independent contractors shall be in accordance with actual invoices submitted to the Consultant with no further markup. Compensation for interns and co-op students shall be computed at their actual hourly salary times the 2.3 field personnel multiplier. The multiplier shall constitute full payment for all employee benefits, overhead, general administrative costs, profit, and all other unallocated costs and expenses.

### **5.1.4. Payment for Reimbursable Expenses**

The Authority may reimburse the Consultant for its expenses which are actually made or incurred in either a not to exceed aggregate amount, and/or for its expenses if identified in a particular Work Order up to the maximum amount referenced under said Work Order. As used in this Agreement and any Work Order under this Agreement, the term “reimbursable expenses” shall mean those actual extraordinary expenditures previously approved by the Authority that are made or incurred by the Consultant directly, and not paid for elsewhere, or covered under the Consultant’s multiplier, in connection with and in the interest of the Authority as per the table below:

<b>Reimbursable Expense Type</b>	<b>Allowable</b>	<b>Non-Allowable</b>	<b>Comment</b>
Mileage		X	Only “on-site” mileage or travel within Massport facilities will be allowed for personnel billed at the field multiplier (resident inspection), or for special out-of-state travel <b>if</b> approved in advance @ IRS Approved Rate.
Tolls		X	Tolls will only be allowed for travel within Massport facilities for personnel billed at the field multiplier (resident inspection), and for special out-of-state travel <b>if</b> approved in advance.
Parking	X		Only If approved in advance for meetings <b>not</b> held at Massport property (receipt required).
Parking Fines		X	
Leased Vehicles		X	
Rental Cars	X		Rental Cars will be reimbursed for special out of state travel. Massport will only reimburse for mid-size class or cheaper. Rental Cars should be approved in advance. Receipt is needed.
Hotel	X		Hotels will be reimbursed for special out- of- state travel. Travel should be approved in advance. Per the GSA Lodging Per Diem or less: ( <a href="http://www.gsa.gov/portal/category/100120">http://www.gsa.gov/portal/category/100120</a> ) Receipt is needed for hotel
Flight	X		Flight costs will be reimbursed for special out of state travel at actual costs without change fee, unless approved in advance. Economy Class only. Travel to be approved in advance.

			Receipt is needed.
Travel insurance, Even More Space Fee, Late Fees, Cancellation Fees, Charges incurred due to indirect travel for personal reasons		X	
Meals	X		Meals will be reimbursed only for special out-of-state travel – Travel should be approved in advance. Consultant should use approved GSA Meal Per Diem Rates or less. Receipts not required if using approved GSA Meal Per Diem Rate. If receipts for meals are less than the GSA Guidelines, then receipt must be provided with billings. ( <a href="http://www.gsa.gov/portal/category/100120">http://www.gsa.gov/portal/category/100120</a> ) Alcohol will <b>not</b> be reimbursed.
MPA Security Badge	X		Cost of first badge only, receipt needed. Re-application charges due to applicant mistake on initial application and/or loss of badge will not be reimbursed.
TWIC Badging		X	TWIC badge remains with the person after the project.
Training for Badging		X	
Postage		X	Unless "mass" mailing requested by Massport.
Courier	X		If approved in advance with receipt.
Photography, film, etc.		X	Not everyday pictures. Yes, for aerial photography if approved in advance with receipt.
Reproductions	X		Reproduction costs will be approved with invoice from outside Vendor only when associated with major submittals with prior approval from the Project Manager (submittal information should be noted on the invoice)
Phone Calls		X	
Transportation Network Companies (TNC)	X		Transportation costs will be reimbursed only for travel necessary for meetings <b>not</b> held at Massport property, and for out- of- state travel and out- of- state visitors with receipt.
T Passes		X	
Job Related Meals (Luncheons)	X		Only If approved in advance , with receipt.
Job Related Supplies		X	Not for office supplies. Yes for laboratory, safety or environmental supplies, with prior approval and receipt.
Job Related Books/Periodicals	X		If approved in advance with receipt.

All other costs and equipment necessary to support staff functions and services, and incidental Project team coordination costs, including communications, printing, reproduction, mail, and

delivery services dealing with internal team functions, are considered overhead and are included in the multiplier.

### **5.1.5. Overtime**

The Consultant will be reimbursed for overtime compensation only for its employees who are required to be paid overtime pursuant to the Massachusetts Minimum Fair Wage Law, M.G.L. c. Section 151 B. The Consultant shall only be reimbursed for overtime at the employee's actual hourly rate times the Consultant's approved multiplier. In addition, overtime expenses shall be reimbursed only to the extent that sufficient funds are available under this Agreement or an individual Work Order.

### **5.1.6. The Use of Field Multiplier vs. Office Multiplier**

The table below summarizes the distinction between field and office multiplier for various categories and durations.

Personnel Classification	Function	Duration	Multiplier
Resident Engineer	Any	N/A	Field
Inspector	Any	N/A	Field
Designer of Record	Design	N/A	Office
Designer of Record	CA at Office	N/A	Office
Designer of Record	CA at Site	less than 6 Months	Office
Designer of Record	CA at Site	greater than 6 Months	Field
Designer of Record	RE / Inspection	less than 6 Months	Office
Designer of Record	RE / Inspection	greater than 6 Months	Field

### **5.2. Payments Based on Lump Sum Price**

For services described in any Work Order based on a lump sum price, the Consultant's sole compensation shall be one or more payments not to exceed the lump sum price set forth in the Work Order. The lump sum price shall constitute full payment for all direct and indirect costs, including employee benefits, overhead, general administrative costs, profit, other unallocated costs and expenses, and reimbursable expenses. The lump sum price may be divided at the discretion of the Authority into phased and/or partial payments based on the progress demonstrated by the Consultant and/or the completion of pre-established events, such as the submission of deliverables or the completion of a phase under the Work Order, as long as work performed by the Consultant is at least proportionate to the phased or partial payment requested. The Consultant shall make prompt payments to subconsultants and independent contractors for services satisfactorily performed after receipt by the Consultant of payment from the Authority for such services.

### **5.3. Requests for Payment and Documentation**

The Consultant shall submit invoices to the Authority in accordance with the schedule set forth in Article 5 (if applicable), or the schedule set forth in the fully executed Work Order (if applicable), or shall otherwise invoice on a monthly basis. The Consultant shall utilize “PMWeb” in submitting invoices. In addition to attaching a scanned copy of the Consultant’s actual invoice in PMWeb, Consultants will be asked to fill in applicable fields, and also submit a filled out copy of an excel template with every invoice (reference Example under Exhibits). Invoices shall be accompanied by appropriate supporting documentation for the services performed, and any additional detail that the Authority may have otherwise required within a Work Order. Reimbursable Expenses listed in the above table and identified within the executed Work Order shall require receipts. Consultants should submit invoices monthly for services performed, however, the Authority reserves the right not to accept invoices for services performed or expenses incurred that are older than ninety (90) calendar days, and under no circumstances will the Authority accept invoices that are older than one (1) year.

All payments to the Consultant made by the Authority shall be via Electronic Funds Transfer (EFT). The Vendor Maintenance Form needs to be filled out by the Consultant prior to invoicing and can be obtained by emailing [APVendor@massport.com](mailto:APVendor@massport.com).

### **5.4 Required Use of Project Management System**

It is the Owner’s intent to limit the amount of paper documents utilized on the Project. Therefore, the Consultant shall be required to utilize the Owner’s Project Management System (“PMWeb”)

relative to the management and administration of the Project. The Owner shall provide the Consultant and its Subconsultants with a non-exclusive, revocable license to utilize the Project Management System, which shall be used to generate and/or maintain all forms of communications, including, deliverables, meeting minutes, monthly invoices, RFIs, submittals, change order reviews, inspection reports, and other types of typical correspondence. The generation and/or maintenance of documents shall automatically create a document log so the tracking of, and response to documents can be maintained electronically. The Owner shall provide training to the Consultant and, if necessary, its Subconsultants, so that the Project Management System can be learned and used effectively.

If the Contract is terminated, such license shall automatically terminate as of the effective date of Contract termination; provided that the Owner shall, for a period of six (6) years following the effective date of such termination, provide the Consultant with reasonable access to those documents that were on the Project Management System as of the date of termination and to which the Consultant had access before such termination. If the Contract is not terminated, such license shall automatically terminate as of the date of final payment to the Consultant; provided the Owner shall, for a period of six (6) years following the date of final payment, provide the Consultant with reasonable access to those documents that were on the Project Management System as of the date of final payment and to which the Consultant had access before such date of final payment.

The Owner reserves the right to adopt written procedures and guidelines regarding the use of the Project Management System by the Consultant and its Subconsultants. The Consultant and its Subconsultants shall be bound by such written procedures and guidelines upon receipt thereof. It is



the Prime Consultant's responsibility to notify the Authority of all personnel, including subconsultants, who will no longer be working under this Contract so PMWeb access can be deactivated.

### **5.5 Required Use of Internet-Based Compliance Management Software System**

As part of the Authority's commitment to assist Consultants to conveniently comply with legal and contractual compliance reporting requirements, the Authority maintains an online Compliance Management Software (CMS) system (System). The System is designed to help reduce Consultant's administrative costs and to provide various work-flow automation features that improve the required Project compliance reporting processes. The System is provided for use by the Consultant and subconsultants at no cost, and System training is also provided at no cost.

The Consultant and all subconsultants are responsible to provide legal and contractually required compliance information and reports using the System. The Authority may require additional information related to contract compliance to be provided electronically through the System at any time before, during or after contract award. If the Authority grants any Consultant or subconsultant a waiver from using the System, the Consultant or subconsultant shall be required to use the paper forms for compliance reporting under the Agreement.

Information regarding Consultant access to the System will be provided to a designated point of contact for each Consultant and subconsultant upon award of the contract. The System is Internet-based and can be accessed at the following Internet address: <https://massport.mwdbe.com> for the Prompt Payment Reporting Process and the MBE/WBE/DBE and SB Reporting Process.

### **5.6. Consultant's Accounting Records**

Consultant shall keep accounts, books and records pertaining to services performed and reimbursable expenses incurred in a true and accurate manner and on the basis of generally accepted accounting principles and in accordance with such reasonable requirements to facilitate review as the Authority may require. Upon seventy-two (72) hours advance notice, the Authority or a representative on behalf of the Authority shall have the right to inspect, review or audit, during normal business hours, in conformity with generally accepted auditing standards, the accounts, books, records and activities of the Consultant necessary to determine compliance by the Consultant with the provisions and requirements of this Agreement, including without limitation the Scope of Services. Consultant shall keep such accounts, books and records as required to be maintained by this Agreement at a location within the metropolitan Boston area or, if the Consultant maintains such accounts, books and records in another location outside the metropolitan Boston area, the Consultant such make such accounts, books and records available at Consultant's Boston office or at a site acceptable to the Authority upon reasonable notice from the Authority. The Authority shall have the right to photocopy or otherwise duplicate at Consultant's expense those accounts, books and records as the Authority determines to be necessary or convenient in connection with its review or audit thereof. If Consultant's accounts, books or records have been generated from computerized data, Consultant shall provide the Authority or its representative with extracts of the data files in a computer readable format on suitable computer data exchange formats acceptable to the Authority. Consultant shall



retain and keep available to the Authority all books and records relating to this Agreement for a period of not less than seven (7) years following the expiration of the Term of this Agreement or, in the event of litigation or claims arising out of or relating to this Agreement, until such litigation or claims are finally adjudicated and all appeal periods have expired.

#### **5.7. Acceptance of Payment**

The acceptance by the Consultant of its final payment under this Agreement shall operate as a release to the Authority of all claims by and all liability to the Consultant, except for claims Consultant has previously given notice for. No payment, however, final or otherwise, shall operate to release the Consultant from its obligations under this Agreement.

#### **5.8. Payment Not A Waiver**

Neither the approval nor the making of any payment to the Consultant by the Authority shall be deemed an acceptance of any services not performed in accordance with this Agreement, or an acknowledgment that such services have been performed in accordance with this Agreement.

#### **5.9. Authority's Right to Withhold Payment**

The Authority may withhold payment to such extent as it deems necessary as a result of (a) third party claims arising out of the services and made against the Authority; (b) evidence of fraud, overbilling or overpayment discovered upon audit; (c) failure to make prompt payments to subconsultants or independent contractors; (d) a payment request that includes fees for unapproved subconsultants or independent contractors; (e) unsatisfactory performance of services; or (f) any breach of this Agreement.

### **Article 6 – Insurance**

#### **6.1. Professional Liability Insurance Coverage**

The Consultant shall maintain at all times required under this Agreement professional liability insurance coverage for professional errors and omissions arising out of the performance of services under this Agreement in an amount not less than \$5,000,000. Such insurance shall extend to the Consultant and to its legal representatives in the event of death, dissolution or bankruptcy of the Consultant, and shall cover any negligent errors and omissions arising out of the performance of services under this Agreement committed (or alleged to have been committed) by the Consultant or any person for whom the Consultant is legally responsible, including without limitation its agents, employees, subconsultants and independent contractors.

#### **6.2. Deductible.**

The Consultant may maintain a professional liability insurance policy with a deductible clause in an amount approved by the Authority if, in the judgment and opinion of the Authority, the Consultant's financial resources are sufficient to adequately cover possible liability in the amount of the deductible. In no event shall the Authority be responsible for payment of any deductible.

### **6.3. Worker's Compensation, General Liability, Automobile and Other Insurance**

The Consultant shall carry, and shall ensure that each of its subconsultants and independent contractors carries, the following coverages:

- (a) Worker's compensation insurance as required under federal and Massachusetts law.
- (b) Employer's liability insurance with a minimum limit per accident or disease of \$1,000,000.
- (c) If applicable to the services hereunder, insurance sufficient to discharge the Consultant's responsibilities under the Jones Act and the Longshore and Harbor Worker's Compensation Act.
- (d) Commercial general liability insurance for bodily injury and property damage in the combined single limit of \$5,000,000, which shall include, without limitation, blanket contractual liability insurance covering all liabilities assumed by the Consultant under this Agreement; provided, however, that the Consultant may endorse its own commercial general liability policy to include its subconsultants and independent contractors as additional insureds in order to fulfill the insurance obligation described in this subparagraph (d) if the Authority provides its written approval in advance of such action, which approval the Authority may grant or deny in its sole discretion.
- (e) Comprehensive automobile liability insurance for bodily injury and property damage in the combined single limit of \$10,000,000 covering all owned, hired, and non-owned vehicles; provided, however, that the Consultant may endorse its own comprehensive automobile insurance policy to add a schedule of all vehicles to be used by its subconsultants and independent contractors in connection with the services hereunder, designating each such vehicle as "non-owned hired" or as otherwise appropriate, in order to fulfill the insurance obligation described in this subparagraph (e) if the Authority provides its written approval in advance of such action, which approval the Authority may grant or deny in its sole discretion; and
- (f) Valuable papers insurance for the restoration of plans, drawings, field notes and other documents in the event of their loss or destruction while in the custody of the Consultant.

### **6.4. Insurance Policies and Certificates**

Prior to the execution of this Agreement, the Consultant shall furnish to the Authority certificates of insurance reflecting policies in force, and shall also provide certificates evidencing all renewals of any expiring insurance policy required hereunder within ten (10) days of the expiration thereof. The Consultant's failure to provide and continue in force and effect any insurance required under this Article shall be deemed a material breach of this Agreement for which the Authority, in its sole discretion, may terminate this Agreement immediately or on such other terms as it sees fit. If requested by the Authority, the Consultant shall provide copies of its insurance policies and/or evidence satisfactory to the Authority concerning the effectiveness and the specific terms of the insurance, including deductibles.

## **6.5. No Cancellation**

All insurance maintained by the Consultant pursuant to this Article shall be written by insurance companies having a Best's Rating of B+ or better, and licensed to do business in Massachusetts shall be in a form and substance satisfactory to the Authority, and shall provide that the insurance will not be subject to cancellation, expiration without renewal, termination, or material change during its term except upon thirty (30) days' prior written notice to the Authority.

## **6.6. Duration of Insurance Obligations**

The Consultant shall maintain its professional liability insurance coverage required under this Agreement in force and effect at all times during the Consultant's performance of services under this Agreement, and for a period not less than six (6) years after the Authority's final acceptance of the Work or the completion of the Consultant's services under this Agreement, whichever comes later. Commercial general liability insurance coverage required under this Agreement shall be in full force and effect at all times during the Consultant's performance of services under this Agreement, and for a period of three (3) years after the Authority's final acceptance of the Work or the completion of the Consultant's services, whichever comes later. All other insurance shall be maintained in full force and effect at all times during the Consultant's performance of services under this Agreement and until the Authority's final acceptance of the Work or completion of the Consultant's services, whichever comes later.

## **6.7. Consultant's Insurance Primary**

The commercial general liability and automobile liability policies maintained by the Consultant pursuant to this Agreement shall provide that insurance applying to the Authority shall be primary, and that the Authority's own insurance shall be non-contributing.

## **6.8. Additional Insured**

All liability insurance policies, except the professional liability, workers' compensation, and employer's liability Policies, maintained by the Consultant pursuant to this Agreement shall be endorsed to include the Authority, its officers, directors and employees as additional insureds, and all property and liability insurance policies, except professional liability, shall be endorsed with a waiver of subrogation by the insurer as to the Authority.

## **Article 7 – Indemnification and Related Provisions**

### **7.1. Indemnification**

Consultant, at its expense, shall defend, indemnify, and hold harmless the Authority, its members, officers, and employees from and against any and all Consultant and third party claims, demands, suits, causes of action, including actions for personal injury or wrongful death, actions for property damage, and any other types of claims, and all losses, damages, and expenses which are the subject thereof, including attorneys' fees and costs of investigation and litigation, alleging a violation of law or for any other cause arising out of or resulting from any error, omission, or negligent act, or any

breach of contractual duties of the Consultant and/or its agents, employees, subconsultants, suppliers, and independent contractors, and the employees of each, in the performance of this Agreement; provided, however, that this obligation to defend, indemnify, and hold harmless shall not apply to claims caused solely by the negligence or willful misconduct of the Authority. The foregoing express obligation of indemnification shall not be construed to negate or abridge any other obligation of indemnification running to the Authority which would exist at common law, and the text of this obligation of indemnification shall not be limited by any obligation of or any term or condition of any insurance policy required under this Agreement. In case any action or proceeding is brought against the Authority by reason of any such claim, the Consultant, upon notice from the Authority, shall resist or defend such action or proceeding with counsel reasonably acceptable to the Authority. The Authority shall give the Consultant reasonable written notice of any claims threatened or made or suit instituted against it which could result in a claim of indemnification hereunder. This paragraph shall survive any termination or expiration of this Agreement.

## **7.2. No Personal Liability**

Members or employees of the Authority shall not be charged personally or held contractually liable by or to the Consultant under any term or provision of this Agreement, or because of any breach hereof, or because of its execution or attempted execution.

## **7.3. Independent Contractor Relationship**

The parties intend that an independent contractor relationship shall be created by this Agreement. As between the Consultant and the Authority, the Consultant shall be responsible for any liability to third parties resulting from errors, omissions, or negligent acts of the Consultant, its agents, employees, subconsultants, suppliers, or independent contractors arising from or occurring in the course of the performance of the services under this Agreement. No act or direction of the Authority shall be deemed to be the exercise of supervision or control of the Consultant's performance hereunder.

## **7.4. Limitation of Liability**

The liability of the Authority under this Agreement is limited to the compensation provided under Article 5, and shall in no event include liability for incidental, indirect, special or consequential damages, or for damages or loss from causes beyond the Authority's reasonable control.

## **7.5. Non-Waiver**

Neither the Authority's review, approval, acceptance or payment for services under this Agreement, nor the failure of the Authority to require the Consultant's performance of any provision of this Agreement, shall operate as a waiver of any rights under this Agreement, and the Consultant shall be and remain liable to the Authority for all damages incurred by the Authority as the result of the Consultant's failure to perform in accordance with this Agreement. The rights and remedies of the Authority provided for under this Agreement are in addition to any other rights or remedies provided at law or in equity. The Authority may assert a right to recover damages by any appropriate means, either during or after performance of this Agreement.

## **Article 8 – Form, Ownership and Publication of Documents**

### **8.1. Form and Number of Documents**

All plans, drawings and specifications that shall be part of the bid documents shall be prepared in accordance with the requirements for size and quality specified by the Authority's Capital Programs Department. All such plans, drawings and specifications shall be stamped and signed as appropriate by the professional engineer or architect licensed in Massachusetts who was the author of such plans, drawings, or specifications, or who was in responsible charge and under whose personal supervision such services were performed by regularly employed subordinates. Approval stamps used by the Consultant for shop drawings or other submittals shall be in a form approved by the Authority. The Consultant shall provide review copies of all plans, drawings and other documents prepared by the Consultant under this Agreement in a number specified in each Work Order; provided however, that one of the copies shall be a reproducible. The Consultant shall provide electronic files for each design submittal as required under this Agreement.

### **8.2. Ownership**

All files, records and documents, including without limitation calculations, plans, drawings, and specifications, and all text, electronic and graphic files, prepared pursuant to this Agreement, are property owned by the Authority, shall be clearly marked, identified, in good order, and delivered to the Authority's Project Manager, with a cover letter, upon the completion of the services, but in no event later than sixty (60) days after the acceptance of the Work or termination of this Agreement, unless such time limit shall be extended in writing by the Authority. The Authority may use all such files, records, and documents as it determines.

### **8.3. Publication**

Except as required for the discharge of its duties to the Authority under this Agreement, or required by subpoena or court order, and as otherwise provided in Section 8.4 hereof, the Consultant agrees to hold all information obtained in connection with the services under this Agreement in the strictest confidence, and shall not communicate, release or disclose any document, material, or information obtained or developed under this Agreement in any form (including without limitation plans, sketches, drawings, and other renderings or documents) to any third party without the prior written approval of the Authority. The Consultant shall not use any such information other than for the performance of services under this Agreement. The Consultant shall inform all persons to whom any such document or information has been or will be communicated, released or disclosed of the privileged and confidential nature of such document or information, and shall ensure that all necessary steps are taken so that such document or information is treated confidentially.

### **8.4. Sensitive Security Information**

The Consultant shall maintain in confidence, and shall cause its Key Employees (as hereinafter defined) to maintain in confidence, (a) all contract documents and information to be developed under this Agreement, and (b) all records, documents, and information provided to the Consultant by the Authority for the Consultant's preparation of said contract documents and information, that contain

and/or constitute Sensitive Security Information (“SSI”) as defined by 49 C.F.R. 1520.7, including without limitation, for (a) and (b), above, all data, plans, specifications, sketches, drawings, other renderings, individual personnel records, and all other records, documents and information that contain and/or constitute SSI. The Consultant shall restrict access to all such records, documents and information that contain and/or constitute SSI only to those employees of the Consultant who require such access to perform the services required under this Agreement (such employees, “Key Employees”).

**The unauthorized release of SSI is prohibited.** All records, documents and information defined by 49 C.F.R. 1520 *et seq.* as SSI, or designated by the Authority as SSI, shall be marked, stored, distributed and destroyed in accordance with 49 C.F.R. 1520 *et seq.* SSI records, documents and information received during the course of this Agreement are the property of the Authority. No part of any such records or documents, or any of the information contained therein, may be photocopied or reproduced in any way except as specifically required or permitted by the terms of this Agreement, or released to any person without the prior written permission of the Authority. Unauthorized possession, photocopying, reproduction, or release of such records and documents, or any portion of their contents, or failure to return them to the Authority immediately upon request, shall constitute a material breach of this Agreement, and may result in immediate termination of this Agreement and/or such other action as deemed appropriate by the Authority, including but not limited to referral to federal authorities [see 49 C.F.R. 1520.5(d)].

## **Article 9 – Authority of the Director of Capital Programs and Environmental Affairs**

**9.1.** The duly-appointed Director of Capital Programs and Environmental Affairs of the Authority is hereby authorized to act on behalf of the Authority with respect to all powers of written approval reserved to the Authority in this Agreement.

**9.2.** Except for Article 3.1, the authority vested in the Director of Capital Programs and Environmental Affairs may be exercised by the Project Manager for the Project hereunder, who shall be appointed by the Director of Capital Programs and Environmental Affairs or the Executive Director of the Authority.

## **Article 10 – Non-Discrimination, Civil Rights, Business Diversity & Impacted Community Business Participation**

### **10.1. Authority Policy**

In accordance with policies adopted by the Authority, the Consultant agrees as follows:

**10.1.1.** Consultant shall not discriminate against any person, employee, or applicant for employment because of that person’s membership in any legally protected class, including but not limited to that person’s race, color, gender, religion, creed, national origin, ancestry, age (40 years and over), sexual orientation, pregnancy, citizenship, gender expression and identity, handicap, disability, genetic information, or veteran status. Consultant shall not discriminate against any person, employee, or applicant for employment who is a member of, or applies to perform service in, or has an obligation to perform service in, a uniformed military service of the

United States, including the National Guard, on the basis of that membership, application, or obligation.

**10.1.2.** The Consultant shall comply with all federal and state laws and Authority regulations pertaining to Civil Rights and Equal Opportunity, including executive orders and rules and regulations of appropriate federal and state agencies, unless otherwise exempt therein.

**10.1.3.** The Authority is committed to ensuring full participation of diverse businesses in all of the Authority's economic activities, including its purchases or goods and services. The Authority supports and encourages the hiring of a diverse and inclusive workforce throughout its economic activities, and believes that Minority Business Enterprises ("MBEs") and Women Business Enterprises ("WBEs") should have equal opportunity to participate in contracts. The terms MBE and WBE refer to businesses that meet the certification criteria of, and are certified by, the Massachusetts Supplier Diversity Office ("SDO") (formerly known as the Massachusetts State Office of Minority and Women Business Assistance ("SOMWBA"), set forth in 425 CMR Section 2.00 et seq. or that meet the certification criteria of, and are certified by, the Greater New England Minority Supplier Development Council ("GNEMSDC")

**10.1.4.** The Consultant shall abide by and conform with the Compliance with Civil Rights and Non-Discrimination Provisions set forth in **Exhibit I**, which is attached hereto and incorporated herein.

## **10.2. Federal Requirements**

In all work pertaining to Hanscom Field, Worcester Airport, and Boston-Logan International Airport, financed in whole or in part with federal funds, and in accordance with the requirements of the United States Department of Transportation regulations, 49 CFR Part 21 and 26, Consultant agrees to the following provisions required by federal grant agreements entered into by Authority:

**10.2.1. Compliance with Regulations.** Consultant shall comply with the regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (DOT) found in 49 CFR, Part 21 ("Regulations"), as they may be amended from time to time, which are hereby incorporated herein by reference and made a part of this Agreement.

**10.2.2. Nondiscrimination.** Consultant, with regard to the services performed by it during the term of this Agreement, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the Agreement covers a program as set forth in Appendix B of the Regulations.

**10.2.3. Solicitations for Subcontracts.** In all solicitations either by competitive bidding or negotiation made by Consultant for services to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subconsultant or supplier shall be notified by Consultant of Consultant's obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

**10.2.4. Information and Reports.** Consultant shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Authority or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a Consultant is in the exclusive possession of another who fails or refuses to furnish this information, Consultant shall so certify to the Authority or the FAA as appropriate, and shall set forth what efforts it has made to obtain the information.

**10.2.5. Disadvantaged Business Enterprise (DBE) Program 49 Code Of Federal Regulations Part 26.** This contract is subject to the requirements of the United States Department of Transportation's regulations, 49 CFR Part 26 (the "Regulations").

The Consultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Consultant shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the Consultant to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient, deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Disqualifying the Consultant from future bidding as non-responsible.

The Consultant agrees to include the preceding statements in any subsequent consultant agreement or contract covered by 49 CFR Part 26 that it enters into and cause those businesses to similarly include the statements in further agreements.

It is the policy of Massport to ensure that DBEs, as defined in Part 26, have an equal opportunity to receive and participate in DOT assisted contracts. It is also Massport's policy:

1. To ensure nondiscrimination in the award and administration of DOT assisted contracts;
2. To create a level playing field on which DBEs can compete fairly for DOT assisted contracts;
3. To ensure that the DBE Program is narrowly tailored in accordance with the Regulations and other applicable law;
4. To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;
5. To help remove barriers to the participation of DBEs in DOT assisted contracts;
6. To promote the use of DBEs in all types of federally assisted contracts and procurement activities;
7. To assist the development of firms that can compete successfully in the market place outside the DBE Program; and
8. To provide appropriate flexibility to Massport in establishing and providing opportunities for DBEs.



The Authority is required to monitor and report DBE participation. Accordingly, Consultant shall provide information related to DBE participation, if any, during the term of the contract to the Authority.

The Authority will provide a DBE goal recommendation for all work orders issued under this contract.

Prime Consultant is required to report monthly payments made to each DBE as they occur utilizing Massport's Online Compliance Management Software System (B2G). DBEs are required to verify the payment information reported by the Prime Consultant utilizing the Online Compliance Management Software System. (B2G).

Consultant agrees that it will undertake an affirmative action program as required by 14 CFR Part 152, Subpart E, to ensure that no person shall be excluded from participating in any employment activities covered in 14 CFR Part 152, Subpart E. Consultant agrees that no person shall be excluded on these grounds from participating in or receiving the services or benefits of any program or activity covered by this Subpart. Consultant agrees that it will require that its covered suborganizations provide assurances to Consultant that they similarly will undertake affirmative action programs, and will require assurances from their suborganizations, as required by 14 CFR Part 152, Subpart E, to the same effect.

**10.2.6. Incorporation of Provisions.** Consultant shall include the provisions of Paragraphs 10.2.1. through 10.2.5. in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. Consultant shall take such action with respect to any subcontract or procurement as the Authority or the FAA may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that, in the event the Consultant becomes involved in, or is threatened with, litigation, Consultant may request the United States to enter into such litigation to protect the interests of the United States or the Authority.

## **Article 11 – Successors and Assigns**

### **11.1. Prohibition on Delegation or Assignment**

Consultant is engaged under this Agreement as an independent contractor and not as an agent or employee of the Authority. This Agreement is the result of a careful selection process and the Services to be performed are unique to the Consultant and a limited class of other qualified consultants. The Consultant acknowledges and agrees that the performance of this Agreement is a professional services agreement, and as a result, this Agreement as well as the rights, duties and obligations of Consultant shall not be assigned, delegated or subcontracted without the Authority's prior written approval.

### **11.2. Successors**

The Authority for itself and its successors, and the Consultant for itself, its successors, assigns, partners and legal representatives, bind themselves each to the other with respect to all of the terms

and conditions of this Agreement.

## **Article 12 – Suspension and Termination**

### **12.1. Suspension or Termination Without Cause**

Notwithstanding any other provision of this Agreement, the Authority reserves the right, at any time in its absolute discretion, to suspend or terminate this Agreement in whole or in part without cause upon thirty (30) days' written notice to the Consultant. With respect to services performed, the Authority agrees to pay the Consultant the progress payments accruing to the Consultant under Article 5 hereof through and including the effective date of the suspension or termination. If any portion of this Agreement so suspended is not recommenced by written notice of the Authority within the time period specified in the written notice of suspension, the suspended portion of this Agreement shall be thereupon deemed terminated as to that portion for the convenience of the Authority in accordance with this provision. The Authority shall incur no liability by reason of a termination for convenience, except for the obligation to pay in accordance with this Agreement progress payments and reimbursable expenses (if applicable) accruing through and including the date of termination, which obligation shall not exceed the limits established under each phase of the Work as to which the Authority has expressly authorized the Consultant to proceed, plus reasonable costs incurred in connection with the termination as approved by the Authority.

### **12.2. Termination for Cause**

If this Agreement or any part hereof shall be assigned or sublet by the Consultant without the prior written consent of the Authority, or if the Consultant shall violate any material provision of this Agreement, or if the Consultant shall fail to perform the services or any material obligation, and such failure shall not be cured by the Consultant within five (5) days of its receipt of written notice thereof from the Authority, or if the Consultant becomes unable to perform the services contemplated under this Agreement, the Authority may terminate this Agreement upon seven (7) days' written notice or as otherwise provided in this Agreement, and the Authority may complete the services by such means as it determines. In the event of a termination for cause, the Consultant shall not be entitled to any further payment. If the total expense of completing the services reasonably incurred by the Authority, plus the Authority's losses and damages arising out of the Consultant's default, exceeds the unpaid balance of any amounts due the Consultant under this Agreement, the Consultant shall pay the deficiencies to the Authority upon demand.

### **12.3. Authority's Rights Upon Termination**

In the event of termination for convenience or cause, the Consultant shall promptly deliver to the Authority all documents pertaining to the Consultant's professional services performed through and including the effective date of termination. Any termination of this Agreement shall not impair the right of the Authority to recover damages occasioned by the fault or default of the Consultant.

## **Article 13 – Miscellaneous Provisions**

### **13.1. Conflict of Interest**

The Consultant shall not hire or employ, on either a full-time or part-time basis during the term of this Agreement, any person or persons so long as such person(s) shall be employed by the Authority. The Consultant hereby certifies that this Agreement is made in good faith, without fraud, collusion of any kind with any other consultant for the same services, and that the Consultant is acting solely on its own behalf without connection with, or obligation to, any undisclosed person or firm and in full compliance with the provisions of M.G.L. Chapter 268A and any other applicable conflict of interest laws. By execution of this Agreement, the Consultant certifies and discloses that the Consultant its subconsultants and independent contractors have no financial or other interest in the execution or outcome of the proposed Project that is the subject of this Agreement. If any officer, agent or employee of the Authority has a financial interest in the Consultant, the Consultant hereby agrees that its representatives shall consult with the Authority's legal representatives to learn what action shall be taken to comply with the provisions of M.G.L. Chapter 268A, and any other applicable conflict of interest laws. All conflict of interest matters that arise during the Term of this Agreement shall be handled in a manner consistent with the requirements of applicable state and federal law, and the Consultant, its subconsultants and independent contractors shall conduct themselves at all times in a manner that will avoid any conflict of interest.

### **13.2. Assistance in Claims and/or Litigation**

The Consultant shall render assistance to and on behalf of the Authority in claims and/or litigation in connection with or arising out of this Agreement, including without limitation, any claims and/or litigation involving the Consultant, its subconsultants or independent contractors, and any claims and/or litigation brought by or against the Authority and any third parties, by providing technical information, analyses and expert witnesses only for the Authority. The Consultant shall provide services under this Section 13.2 at a mutually agreed upon and reasonable rate; provided, however, that subject to the terms of Article 7, the Consultant shall not be reimbursed by the Authority for such services to the extent they are performed by the Consultant for its own defense of claims and/or litigation.

### **13.3. Certificates**

The Consultant shall complete, sign, and comply with the provisions of the Consultant's Certificate and the Certificate of Compliance with Laws, attached as **Exhibits C and D** to this Agreement.

### **13.4. Notices**

All notices, approvals, requests, consents or other communications that are required or permitted pursuant to this Agreement shall be effective upon receipt if hand delivered, sent by a nationally recognized overnight courier, or sent by United States registered mail, return receipt requested, to the Authority addressed to **MASSACHUSETTS PORT AUTHORITY, Logan Office Center, One Harborside Drive, Suite 200S, East Boston, Massachusetts, 02128**, and directed to the attention of the Director of Capital Programs and Environmental Affairs, or to the Consultant addressed to

(Consultant's Name and Address with zip code) and directed to the attention of (Name and Title of Consultant's contact person), or to such other address as either party may specify to the other by notice given as provided herein.

### **13.5. Invalid Provisions**

If any term or condition of this Agreement or any application thereof shall to any extent be held invalid, illegal or unenforceable by a court of competent jurisdiction, the validity, legality and enforceability of the remaining terms and conditions of this Agreement shall not be deemed affected thereby, unless one or both parties would be substantially or materially prejudiced.

### **13.6. Governing Law**

This Agreement shall be governed by, construed, and enforced in accordance with the laws of the Commonwealth of Massachusetts.

### **13.7. Jury Waiver**

The parties, by execution of this Agreement, voluntarily and intentionally waive all rights to trial by jury as to all claims, disputes, or controversies arising out of, or relating to, this Agreement or the performance thereof.

### **13.8. Entire Agreement**

The following exhibits described in this Agreement and attached to it as of the date of its execution shall be incorporated in and made a part of this Agreement:

- Exhibit A: Consultant's Hourly Rates / Excel Template for Invoicing
- Exhibit B: Authorization of Consultant's Multiplier (if higher than 2.7)
- Exhibit C: Consultant's Certificate
- Exhibit D: Certificate of Compliance with Laws
- Exhibit E: Sample Bulletin Cover Sheet
- Exhibit F: Guidelines for Preparation of Work Orders/Sample Work Order
- Exhibit G: Consultant's Security Identification Requirements for Airport Projects
- Exhibit H: Building Information Modeling (BIM) Exhibit
- Exhibit I: Compliance with Civil Rights and Non-Discrimination Provisions
- Exhibit J: Lean Design & Construction

If there is any inconsistency between this Agreement and the provisions of any exhibit, the provisions of this Agreement shall take precedence. The terms used in this Agreement and also used in any exhibit to this Agreement shall have the same meaning in the exhibit as in this Agreement.

This Agreement, including exhibits attached hereto at the time of its execution, constitutes the entire integrated agreement between the parties with respect to the matters described. This Agreement supersedes all prior agreements, negotiations and representations, either written or oral, and shall not

be modified or affected by any course of dealing, course of performance, or usage of trade.

### **13.9. Section Headings and Captions**

All section headings and captions used in this Agreement are solely for convenience, and shall not affect the interpretation of this Agreement.

### **13.10. Counterparts**

This Agreement may be executed in any number of counterparts, and each fully executed counterpart shall be deemed an original.

### **13.11. Survival of Terms**

The Authority's rights and the Consultant's obligations hereunder that contemplate continuing rights and obligations, respectively, including without limitation, the Consultant's obligations to indemnify the Authority and to keep certain insurance coverages in effect, shall survive completion of the Consultant's services hereunder and the expiration or earlier termination of this Agreement.

### **13.12. Amendments**

This Agreement may be amended only by a written instrument specifically referencing this Agreement executed by authorized representatives of the parties.

### **13.13. Authority**

The Consultant represents that it is a \_\_\_\_\_ duly existing and in good standing under the laws of the \_\_\_\_\_, and is authorized to transact business in the Commonwealth of Massachusetts. Each person executing this Agreement on behalf of the Authority and the Consultant, respectively, represents and certifies that he/she has the authority to sign on behalf of such party to the Agreement, and to bind such party to the obligations contained herein.

This Agreement may be executed in multiple counterparts, each of which shall be an original, but all of which taken together shall constitute one and the same instrument. For purposes of the execution of this Agreement, the Parties agree that this Agreement may be executed by electronic signature, which shall be considered as an original signature for all purposes and shall have the same force and effect as a manual signature. Delivery of a copy of this Agreement bearing an original or electronic signature by facsimile transmission, electronic mail in portable document format ("pdf"), digital signature software application, or any other electronic means intended to preserve the original graphic and pictorial appearance of a document, will have the same effect as physical delivery of the paper document bearing a manual or electronic signature.

IN WITNESS WHEREOF, this Agreement is executed as of the day and year first written above.

[*CONSULTANT'S NAME*]

**MASSACHUSETTS PORT AUTHORITY**

By: \_\_\_\_\_

By: \_\_\_\_\_

Michael A. Grieco

Title: \_\_\_\_\_

Title: Assistant Secretary-Treasurer

Date: \_\_\_\_\_

Date: \_\_\_\_\_

# **EXAMPLE**

## **EXHIBIT A**

### **CONSULTANT'S HOURLY RATES**

**This Exhibit A shall establish hourly rates for individuals employed by consultant and subconsultants performing approved services as part of this contract. Refer to Sample below.**

<b>Joe Smith</b>	<b>PROJECT MANAGER</b>	<b>\$42.00</b>
<b>Mary Duffy</b>	<b>ENGINEER</b>	<b>\$35.00</b>
<b>Paul Black</b>	<b>CAD</b>	<b>\$24.00</b>
<b>Cynthia Long</b>	<b>ADMINISTRATIVE</b>	<b>\$18.00</b>

# Excel Template/Invoicing

PAGE 1

(This template can be obtained in Excel Format from  
the Contract Specialist)



Project #:		Invoice #	
Project Name:		Submission Date:	24-Oct-23
Contract #:		Work Order #:	
Contract Effective Date:	1-Oct-19	Work Order Date:	1-Nov-13
MPA Project Manager:		Work Order Total:	

Invoice Scope Description:	



## Excel Template/Invoicing

**PAGE 2**



Project #:	0	Invoice #	0
Project Name:	0	Submission Date:	24-Oct-23
Contract #:	0	Work Order #:	0
Contract Effective Date:	1-Oct-19	Work Order Date:	1-Nov-13
MPA Project Manager:	0	Work Order Total:	\$ -

[illegible]

**PAGE 3**



Project #:	0	Invoice #	0
Project Name:	0	Submission Date:	24-Oct-23
Contract #:	0	Work Order #:	0
Work Order Effective Date:	1-Oct-19	Work Order Date:	1-Nov-13
MPA Project Manager:	0	Work Order Total:	\$ -

[illegible]

Excel Template/Invoicing

PAGE 4



Project #:	0	Invoice #	0
Project Name:	0	Submission Date:	24-Oct-23
Contract #:	0	Work Order #:	0
Contract Effective Date:	1-Oct-19	Work Order Date:	1-Nov-13
MPA Project Manager:	0	Work Order Total:	\$ -

Expense Type	Date	Amount	Description/Reason

## **EXHIBIT B**

### **AUTHORIZATION OF CONSULTANT'S MULTIPLIER**

**Per letter dated November 20, 2018 from Sam Sleiman, all Consultants who currently use a 2.7 or lower office multiplier, shall be authorized to use the 2.7 office multiplier effective December 1, 2018. The field multiplier of 2.3 shall remain the same.**

# EXHIBIT C

## CONSULTANT'S CERTIFICATE

The Consultant named in an agreement with Massachusetts Port Authority numbered **MPA CONTRACT NO. \_\_\_\_\_** certifies that:

- a) the Consultant has not given, offered or agreed to give any gift, contribution or offer of employment as an inducement for, or in connection with, the award of the contract for design services;
- b) no such subconsultant or independent contractor to the Consultant has given, offered or agreed to give any gift, contribution or offer of employment to the Consultant, or to any other person, corporation, or entity as an inducement for, or in connection with, the award to the subconsultant or independent contractor of a contract by the Consultant;
- c) no person, corporation or other entity, other than a bona fide full-time employee of the Consultant, has been retained or hired to solicit for or in any way assist the Consultant in obtaining the contract for design services upon an agreement or understanding that such person, corporation or other entity be paid a fee or other consideration contingent upon the award of the contract to the Consultant; and
- d) with respect to contracts which exceed ten thousand dollars, or which are for the design of a building for which the budgeted or estimated construction costs exceed one hundred thousand dollars, that the Consultant has internal accounting controls as required by M.G.L. Chapter 30, Section 39R, and that the Consultant will:
- e) retain accurate and detailed books, records, and accounts for a six-year period after the final payment;
- f) file the required statements of management concerning the Consultant's internal accounting controls;
- g) file an annual audited financial statement; and

- h) submit a statement prepared and signed by an independent certified public accountant stating that such CPA has examined the statement of management on internal accounting controls, and expressing an opinion as to whether management's statement described in (2) above is consistent with the result of management's evaluation of the system of internal accounting controls, and whether such statement is reasonable with respect to transactions and assets that are material in relation to the Consultant's financial statements.

Consultant:\_\_\_\_\_

By:\_\_\_\_\_

duly authorized

Print Name:\_\_\_\_\_

Date:\_\_\_\_\_

# EXHIBIT D

## CERTIFICATE OF COMPLIANCE WITH LAWS

### **Massachusetts Employment Security Law**

Pursuant to G.L. c. 151A, §19A(b), the undersigned hereby certifies\* under the penalties of perjury that Consultant, with Division of Unemployment Assistance (D.U.A.) ID Number \_\_\_\_\_, has complied with all laws of the Commonwealth relating to unemployment compensation contributions and payments in lieu of contributions.

\*Compliance may be certified if Consultant has entered into and is complying with a repayment agreement satisfactory to the Commissioner, or if there is a pending adjudicatory proceeding or court action contesting the amount due pursuant to G.L. c. 151A, §19A(C).

*or check the following:*

\_\_\_\_\_ *The undersigned certifies that the Massachusetts Employment Security Law does not apply to it because Consultant does not have any individuals performing services for it within the Commonwealth to the extent that it would be required to make any contributions or payments to the Commonwealth.*

### **Massachusetts Child Care Law**

Pursuant to Chapter 521 of the Massachusetts Acts of 1990, as amended by Chapter 329 of the Massachusetts Acts of 1991, the undersigned hereby certifies that Consultant (*check applicable item*):

1. \_\_\_\_\_ employs fewer than fifty (50) full-time employees; or
2. \_\_\_\_\_ offers either a dependent care assistance program or a cafeteria plan whose benefits include a dependent care assistance program; or
3. \_\_\_\_\_ offers child care tuition assistance, or on-site or near-site subsidized child care placements.

### **Revenue Enforcement and Protection Program**

Pursuant to G.L. c. 62C, §49A, the undersigned hereby certifies under the penalties of perjury that Consultant's Federal Identification No. is (*for corporate entities*): \_\_\_\_\_ and that to the best of his/her knowledge and belief Consultant has complied with all laws of the Commonwealth relating to taxes, the reporting of employees and contractors, and withholding and remitting of child support.

In order to comply with all laws of the Commonwealth relating to taxes, the undersigned certifies that Consultant (*check applicable item*):

1. \_\_\_\_\_ has filed all tax returns and paid all taxes required by law; or
2. \_\_\_\_\_ has filed a pending application for abatement of such tax; or
3. \_\_\_\_\_ has a pending petition before the appellate tax board contesting such tax; or
4. \_\_\_\_\_ does not derive taxable income from Massachusetts Sources such that it is subject to taxation by the Commonwealth.

**Exhibit D**  
**Page Two**

**Certification Regarding Companies Doing Business with or in Northern Ireland**

Pursuant to G.L. c. 7, § 22C, the undersigned hereby certifies under the pains and penalties of perjury that Consultant is not engaged in the manufacture, distribution or sale of firearms, munitions, including rubber or plastic bullets, tear gas, armored vehicles or military aircraft for use or deployment in any activity in Northern Ireland, and that Consultant (check applicable item):

1. \_\_\_\_\_ does not employ ten or more employees in an office or other facility located in Northern Ireland;  
or
2. \_\_\_\_\_ employs ten or more employees in an office or other facility located in Northern Ireland, but such office or other facility in Northern Ireland (a) does not discriminate in employment, compensation, or the terms, conditions and privileges of employment on account of religious or political belief; and (b) promotes religious tolerance within the work place, and the eradication of any manifestations of religious and other illegal discrimination.

Signed this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Name of Consultant:\_\_\_\_\_

Authorized Signature:\_\_\_\_\_

Print Name: \_\_\_\_\_

Title:\_\_\_\_\_



# EXHIBIT E

Company Logo

Bulletin No. DP01-XXX

MASSACHUSETTS PORT AUTHORITY  
BOSTON LOGAN INTERNATIONAL AIRPORT  
MPA PROJECT No. XXXX  
DESIGN PACKAGE No. DP01  
MPA Project Name – LOCATION

BULLETIN No. DP01-XXX

ISSUE DATE: DATE

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## BULLETIN OVERVIEW

Bulletin is issued to..... All changes in this Bulletin are clouded.

## DIRECTION

- ☐ Buyout
- ☐ Price Only
- ☐ Scope Change – Cost and/or Schedule Impacts
- ☐ Scope Change – No Cost and/or no Schedule Impacts

## DRAWING CHANGES

1. Drawing XXX.XX dated MM/YR is .....

## SPECIFICATION CHANGES

1. Specification XXXXX dated MM/YR is .....

END OF BULLETIN No. DP01-XXX

MPA Project No

Page 1 of 1

Date

# **EXHIBIT F**

## **GUIDELINES FOR PREPARATION OF WORK ORDERS**

Work Orders are intended to be discrete documents that will provide, in detail, the background and factual context within which a particular scope of work, work element or series of work elements will be completed by the Consultant. Work Orders shall be construed to be in addition to, supplementary to and consistent with the provisions of the text of the Agreement. The following guidelines shall be followed in preparing Work Orders for review and approval by the Authority.

### **1 – SAMPLE FORMAT**

Work Orders shall be prepared by the Consultant and submitted to the Authority for review and approval in strict accordance with the **EXAMPLE** form provided by the Capital Programs and Environmental Affairs Department (in Excel format).

Work Orders shall only be numbered sequentially and consultants shall not create their own work order format. The Work Order shall not include a description of the services not being provided by the Consultant.

### **2 – DETAILED COST BREAKDOWN**

The Consultant shall attach a detailed cost breakdown in the form of a level of effort matrix which clearly identifies tasks, personnel, manhours, rates and multiplier(s). Reimbursable expenses shall be described within the level of effort matrix. Furthermore, the level of effort matrix shall include a breakdown of costs for each and every subconsultant or vendor. Consultant shall not attach subconsultant or vendor agreements to the Work Order.

### **3 – WORK ORDER AMENDMENTS**

Work Orders may be amended utilizing the same work order format. Each amendment shall operate as a separate document and shall not require a review of the original Work Order in order to understand the details of the amendment. Each amendment shall clearly identify what element of the original Work Order has been modified and what, if any, schedule or monetary impacts have resulted from such modifications. If the amendment will increase the overall amount of the Work Order, the Work Order amendment must include a level of effort matrix for the increased amount, as described above.

### **4 – WORK ORDER CLOSEOUT**

Upon completion of work or completion of services for a particular Work Order, the Consultant is required to close out the Work Order by completing a Work Order Close-Out Form . The Consultant shall complete and sign the Work Order Close-Out Form and submit it to the Authority for its review and approval. The form identifies what work and monies have been authorized and paid to date including any amendments. Once a Work Order Close-Out Form is signed by the Authority, the Work Order shall be considered closed and no other services may be performed or billed against the particular Work Order. Work Order Close-Out Forms can be obtained from the Contract Specialist. Consultants should ensure that a separate Work Order Close-Out Form is completed for every work order executed under the Agreement.

# Consultant Work Order Template

- SCOPE OF SERVICES



Contract #:		Work Order #:	
Contract Effective Date:		Work Order Date:	

WO Scope of Services	Be very specific on the Scope of Work; it has to clearly describe the work to justify the Level of Effort, Deliverables and Schedule
WO Deliverables/Tasks	Be very specific on the Deliverables/Tasks; they have to be clearly described and relate to the Scope of Work, Level of Effort and Schedule

**Note: It is encouraged that Consultants separate the Scope of Services in multiple Tasks and Deliverables, to make the Work Order more comprehensive.**

- **LEVEL OF EFFORT**



Contract #:	0	Work Order #:	0
Contract Effective Date:	0-Jan-00	Work Order Date:	0-Jan-00
Company (Prime/Sub) Name:			

Employee Name	Employee (Total Hrs)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Hourly Rate	Multiplier	Total
														\$ -
														\$ -
														\$ -
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<b>Total:</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			\$ -

## EXPENSES

-Please list expenses and estimated amounts

- **EXHIBIT A Rates**



Contract #:	0	Work Order #:	0
Contract Effective Date:	0-Jan-00	Work Order Date:	0-Jan-00
Company (Prime/Sub) Name:			

[illegible]

- **SCHEDULE**



Contract #:	0	Work Order #:	0
Contract Effective Date:	0-Jan-00	Work Order Date:	0-Jan-00

[illegible]

- **CA Services**



**\*\*Please fill out this page if providing Construction Administration Services\*\***

Contract #:	0	Work Order #:	0
Contract Effective Date:	0-Jan-00	Work Order Date:	0-Jan-00
Company (Prime/Sub) Name:			

**\*\*BE SURE TO INCLUDE OSHA 10 CARDS IF PROVIDING CA SERVICES\*\***

Construction Administration Services	Approximate Value
Respond to RFIs	
Review Submittals	
Review Schedules	
Review Requisitions	
Review Change Orders	
Review Material Testing	
Review Buyout Packages	
Issue Bulletins	
Issue NCRs	
Attend OAC Meetings	
Prepare Inspection Reports	
Review O&M Manuals	
Review Warrantees	
Support in LEED Documentation	
Support Commissioning Process	
Prepare Punch list	
Prepare Record Drawings	
<b>Total:</b>	<b>0.0</b>

# EXHIBIT G

## SECURITY MEDIA REQUIREMENTS FOR BOSTON-LOGAN INTERNATIONAL AIRPORT PROJECTS

The following procedures shall apply to all projects at Boston-Logan International Airport which require a Contractor Responsible Party (as that term is defined below) to be present in a Security Identification Display Area (SIDA), Sterile Area or Public Area. The Contractor is required to be familiar with and comply with all Massachusetts Port Authority (“Authority” or “Massport”) policies, procedures, rules and regulations, including without limitation those set forth herein, and all applicable federal, state and local laws, rules and regulations, as any of the aforesaid may change from time to time.

### A. Airport Security Badges

**SIDA Badges** - The Contractor shall ensure that each of its employees, members, officers, agents, guests, invitees or volunteers and employees, members, officers, agents, guests, invitees or volunteers of its subcontractors of any tier (any of whom may be referred to individually as a “Contractor Responsible Party” and all of whom may be collectively referred to herein as “Contractor Responsible Parties”) who are present in a SIDA, Sterile Area or Public Area are properly displaying security media, in accordance with this Exhibit and all applicable federal and state laws, the rules, regulations and all directives of the Authority and other governmental entities.

The term “SIDA” shall have the meaning ascribed to it by 49 C.F.R. 1540.5, and shall include, without limitation: (1) all ramp and apron areas; (2) all runways and taxiways; (3) perimeter service road; (4) vehicle service road; (5) hangar areas and areas of cargo facilities from which individuals may access any portion of the aerodrome without passing through an access controlled portal; and (6) baggage makeup areas/baggage rooms.

The term “Sterile Area” shall have the meaning ascribed to it by 49 C.F.R. 1540.5, and shall include, without limitation, all areas of the passenger terminals which are accessed through a TSA security checkpoint during their hours of operation, or when the TSA checkpoints are not in operation, those areas of the passenger terminals which are accessible only through a portal controlled by the Access Control System (ACS).

All applicants for an Unescorted Access SIDA badge shall undergo a FBI criminal history records check, as required by 49 C.F.R. 1542.209 and a Transportation Security Administration (TSA) Security Threat Assessment (STA). The Authority will retain control and responsibility for the maintenance and destruction of the criminal history records, in accordance with federal law. Applicants who refuse to be fingerprinted and/or undergo the FBI criminal history records check will be denied an Unescorted Access Badge.

The application process will require the submission of an “Application for SIDA Identification”

along with the appropriate documentation from the “List of Acceptable Documents” via the SAFE IDMS, through which the Security Badge Office (SBO) Trusted Agent will establish lawful status and work authorization. The application will be reviewed by the Massport Project Manager. If approved, the applicant will be required to proceed to the Security Badge Office to have their fingerprints captured (if applicable) and verify their identification. If the applicant is applying for Class II or Class III driving privileges, they will be required to complete additional training offered through the Authority’s Operations Department. If the applicant’s fingerprints and Security Threat Assessment is returned as favorable, then electronic notification will be sent to the Contractor’s Authorized Signatory indicating that the application has been approved. Upon successful completion of a verbal test on the applicable security regulations, the applicant will have their photo taken and biometrics collected in order to complete badge issuance. During each visit to the Security Badge Office the applicant must present the original IDs submitted with the application. If the applicant does not successfully pass the criminal history records check and/or Security Threat Assessment, they will be ineligible to receive an Unescorted Access SIDA badge. All applicants for an Unescorted Access SIDA badge shall complete a minimum of two computer-based training modules (approximately 90 minutes) prior to receiving an initial or renewal Unescorted Access SIDA Badge

SIDA applications will be accepted from the Authorized Signatories (AS) only; each AS must complete the required recurrent training annually, in order to maintain their qualifications.

The SIDA must be worn at all times while working. It must be worn on the outmost garment between the neck and the waist. Failure to properly display security media is a violation of Authority regulations and may result in a fine, revocation of the security media, and/or removal of the Contractor Responsible Party from the SIDA or Sterile Area.

**SBO business hours for Airport Security Badges (Unescorted Access, TVP, and PSID):**

**Monday – Friday 0700-1500**

**All Contractor Responsible Parties who require access to a SIDA or a Sterile Area for more than thirty (30) days over any twelve (12) month period must apply for an Unescorted Access Badge. Any Contractor Responsible Party who requires access to a SIDA or Sterile Area for a period of thirty (30) days or fewer over any twelve (12) month period may apply for a Temporary Visitor Pass (TVP), as described below.**

**Temporary Visitor Pass (TVP) - TVPs shall only be issued for business purposes. TVPs are issued in-hand only at the Security Badge Office and North/South Gates, and only after presentation of valid government-issued photo identification and satisfactory completion of a criminal background check. A TVP Request Form must be completed accurately and submitted to the SBO, in advance, using SAFE Identity Management System (IDMS). The SBO requires up to four (4) hours advanced notice to issue and process a TVP. Requests for TVPs at the North/South Gates are authorized only when the SBO is closed for TVP issuance, and when access to the airfield is required immediately using the vehicle gates. Otherwise, the North/South Gates will issue TVPs**



**only in emergency situations. This protocol is not to be circumvented because of convenience or late submission of the TVP Request Form.**

**The Authority reserves the right to limit the number of badges per request (i.e., large “block” requests) at the North/South Gates. Large block requests for TVP badges may be directed to the SBO for processing and pick-up, at the discretion of the Authority. Failure to comply with the TVP policy may impact the Contractor’s privilege to receive TVPs in the future.**

A TVP is valid only for the calendar day on which it is issued, except that a Contractor Responsible Party who has filed an application for an Unescorted Access Badge may be issued a TVP that is valid for twenty-one (21) consecutive days (not to exceed 30 days/calendar year), only issued by the SBO after application for an Unescorted Access Badge has been submitted. A person who has been issued a TVP must return it to the Authority before he/she is issued an Unescorted Access Badge. Contractor Responsible Parties who are issued a TVP must be escorted by an individual properly displaying his/her Unescorted Access Badge at all times while in a SIDA or Sterile Area, and both, escort and escorted shall remain within the immediate geographic vicinity of their assigned job site at all times. The TVP holder and his/her escort are jointly and severally responsible for ensuring that proper escorting procedures are followed. Unescorted Access SIDA Badge holders must accompany and monitor a TVP holder at all times to ensure that the escorted party is engaged only in activities for which escorted access was granted.

The TVP must be worn at all times on airport premises, in the secure or sterile area. It must be worn on the outmost garment between the neck and the waist. Failure to properly display security media is a violation of Authority regulations and may result in a fine, revocation of the security media, and/or removal of the Contractor Responsible Party from the SIDA or Sterile Area.

**Public Side Identification (PSID) Badges** - The PSID will be issued to all employees and/or contractors who do not require a SIDA badge and work exclusively in the public areas of the terminals. The PSID **will not** authorize a badge holder to enter any Secure Area of the airport, pass through any ACS doors or go through the TSA Security Checkpoint while working.

The PSID application process will require the submission of an “Application for Public Side Identification” along with the appropriate documentation from the “List of Acceptable Documents” via the SAFE IDMS, through which the Trusted Agent will establish lawful status and work authorization. Once the PSID application has been submitted the applicant’s information will be submitted to TSA for a Security Threat Assessment. Once the STA has been approved by TSA, the company will be notified and the applicant will be able to pick up their badge in the SBO. During each visit to the Security Badge Office, the applicant must present the original IDs submitted with the application. Any person who does not successfully complete the STA will be ineligible to receive a PSID.

The PSID must be worn at all times while working. It must be worn on the outmost garment between the neck and the waist. Failure to properly display security media is a violation of

Authority regulations and may result in a fine, revocation of the security media, and/or removal of the Contractor Responsible Party from the SIDA or Sterile Area.

**Authorized Signatory (AS)** - The Contractor shall appoint an Authorized Signatory(s) who shall be responsible for ensuring that all Contractor Responsible Parties complete all applicable training and application requirements prior to submitting any application for security media. The Authorized Signatory must attend an annual Authorized Signatory training class before he/she will be authorized to sign off on security media applications. It shall be the Contractor's responsibility to contact the Security Badge Office for a schedule of required training classes. A listing of all available classes can be found at <http://logansecurity.eventbrite.com>. The Authority's Security Badge Office will provide the required training materials and application processing instructions to the Authorized Signatory. The Contractor's Authorized Signatory shall provide to the Authority documentation confirming that all Contractor Responsible Parties applying for security media have received all applicable training.

The Contractor assumes full responsibility for ensuring that all Security Badge and TVP applications are properly completed and that all security media issued to Contractor Responsible Parties are returned to the Authority upon expiration or termination, as applicable. The Authority may at any time require Contractor, at Contractor's expense, to verify the accountability of all security media issued to Contractor Responsible Parties. Within twenty-four (24) hours after the expiration of this Agreement or completion of the services under this Agreement, whichever comes first, the Contractor shall return to the Authority's Security Badge Office all security media issued to all Contractor Responsible Parties in connection with this Agreement. During the term of this Agreement, the Contractor shall immediately return to the Authority's Security Badge Office any security media issued to any Contractor Responsible Party whose employment has been terminated, or who no longer requires access to a SIDA, Sterile or Public Area, or whose security media has expired.

If the applicant is applying for Class II or Class III driving privileges, they will be required to complete additional training offered through the Authority's Operations Department. If a review of the applicant's fingerprints and Security Threat Assessment is returned as favorable, then electronic notification will be sent to the Contractor indicating that the application has been approved. Upon successful completion of a verbal test on the applicable security regulations, the applicant will have their photo taken and biometrics collected in order to complete badge issuance.

All applications for an Unescorted Access Badge must be submitted to the Security Badge Office, with payment of all applicable fees completed during Visit 1, prior to the need for access to the SIDA or Sterile Areas. All applications for a TVP must be submitted to the Security Badge Office at least four (4) hours prior to the visitor's arrival. The Contractor shall pay the Authority, in accordance with the fee schedule herein, for each Unescorted Access Badge that is unaccounted for, lost, missing, or not returned to the Authority within the applicable time period set forth above. Final payment to the Contractor may be withheld or reduced pending the Contractor's return of all Unescorted Access Badges to the Authority. All Unescorted Access Badges that cannot be accounted for must be reported immediately to the Authority's Security Badge Office at (617) 561-1706 during regular business hours and to the Authority's

Operations Department at (617) 561-3304, after hours and during weekends.

Failure to comply with these rules, regulations, policies and requirements set forth herein, including any amendments and/or additions, shall constitute a material breach of this Agreement and/or a violation of the regulations of the Massachusetts Port Authority, the TSA-approved Boston-Logan International Airport Security Program, or other applicable law, and shall be subject to the applicable penalties for each violation.

**Security media issued by the Authority remains property of the Authority, and is subject to revocation at any time without notice or cause.**

Additional Terms and Conditions:

1. Except if otherwise expressly set forth elsewhere in Contractor's Agreement with the Authority, Contractor's compliance with this security media program shall be considered incidental to Contractor's work and no further or additional payment will be made therefor by the Authority to the Contractor.
2. In addition to the above requirements, any Contractor performing work in the U.S. Customs and Border Protection Security Area or Federal Inspection Services Area may be required to obtain further authorization as determined by the U.S. Customs and Border Protection Service (USCBP), Officer in Charge. No separate payment will be made to the Contractor for U.S. Customs and Border Protection Service authorization, the costs of which are considered a subsidiary part of this Agreement. See Section E, below, for the USCBP requirements, which are subject to change at the sole discretion of the USCBP.

3. Fees for security media are as follows:

SIDA Badge:	\$41 per badge
Initial Fingerprinting:	\$39 per badge
Renewal Fingerprinting:	\$23.25 per badge
PSID Badge	\$10 per badge
Temporary Visitor Pass	\$5 per TVP

Penalties for unaccounted for (lost/stolen/not returned to the Authority) Unescorted Access Badges will be assessed in accordance with the Authority's regulations. Replacement Unescorted Access Badges shall require, at a minimum, a new application and payment of an application fee in addition to any penalty levied. The Contractor must deactivate and return media to the SBO immediately upon learning that an employee will no longer work for the sponsoring employer. Failure to do so will result in issuance of a security violation under the Code of Massachusetts Regulation (CMR), 30.10, to the employee and the Contractor, and the inability of the Contractor to submit additional applications to the SBO. Penalties and application fees are subject to change without notice.

B. Airfield Driver License

One of the following types of driver licenses is available to applicants who have a valid Unescorted Access Badge, and have successfully completed the driver's training courses required by the Authority:

1. Class I: Restricts operation of a motor vehicle to the Vehicle Service Road (VSR) and the ramp and apron areas immediately around the footprint of the terminal building.
2. Class II: Permits operation of a motor vehicle on the VSR, the Perimeter Road and, in some cases, the inner and outer taxiways.
3. Class III: Permits operation of a motor vehicle on all areas of the Aerodrome, including active aircraft areas, runways and taxiways.

All motor vehicle Consultants shall be subject to applicable rules and regulations governing the operation of motor vehicles on the Aerodrome. In addition to the SIDA computer-based training, all licensed airfield drivers shall complete the computer-based "Non Movement Driver Training" or "Movement Area Driver Training" module prior to receiving an initial Unescorted Access Badge and each renewal Unescorted Access Badge. Applicants applying for Class II or Class III licenses shall require additional training by the Authority's Operations Department. Access will be suspended when the driver's license on file expires and will not be reinstated until the badge holder presents their updated license to the Security Badge Office.

C. Vehicle Aerodrome Permits

All vehicles authorized to access to the Aerodrome shall be equipped with Vehicle Aerodrome Permits issued by the Authority's Aviation Security Department. A fee shall be charged for each Vehicle Aerodrome Permit. Said fee shall be determined in accordance with the schedule of fees for Vehicle Aerodrome Permits maintained by the Authority's Department of Aviation Security. To be eligible for a Vehicle Aerodrome Permit, each vehicle must (1) be in a good state of repair, (2) have a valid motor vehicle inspection sticker (plated vehicles only), (3) clearly display company identification on each side, and (4) pass an inspection conducted by the Authority or one of its agents. In addition, satisfactory evidence of required insurance coverage and a copy of the vehicle registration must be submitted with the Vehicle Aerodrome Permit application form, showing limits approved in advance by the Authority's Risk Management Department.

The Contractor shall forward each Vehicle Aerodrome Permit application to the Authority's Project Manager, who will send it to the Authority's Aviation Parking Violations Department for processing. Vehicle Aerodrome Permits shall be issued only to the Contractor; therefore, the Contractor must provide sufficient personnel and escort vehicles to comply with the Authority's rules and regulations. The contractor will be required to provide copies of the following: Massachusetts Vehicle Inspection, vehicle registration and driver insurance. The application must be signed by the Massport Project Manager.

D. ZERO TOLERANCE POLICY

The Authority maintains a ZERO TOLERANCE POLICY with respect to security violations. All violators shall be subject to the penalties set forth in 740 CMR 30 and 31, as applicable, including but not limited to: (1) a fine not to exceed \$2,000.00; (2) suspension of and/or disqualification from receiving an Unescorted Access Badge or a TVP; (3) revocation of an Unescorted Access Badge, a TVP, and/or privileges to perform aviation or commercial services on the airport; (4) removal of the individual from the Sterile Area or SIDA; and/or (5) criminal prosecution.

E. Access to U.S. Customs and Border Protection Security Area

**The Contractor shall ensure that all Contractor Responsible Parties working in the USCBP Security Area or Federal Inspection Services area in furtherance of the work hereunder obtain a U.S. Customs access seal issued by the USCBP. Each employee shall be required to openly display an approved USCBP access seal at all times while in the USCBP Security Area (as defined below). Failure to comply with CFR Title 19, Section 122.182 shall constitute a violation, and shall be subject to the penalties set forth therein for each violation. The Contractor, at the conclusion of the work hereunder, shall return to the USCBP all access seals issued to persons performing any work whatsoever hereunder. The Contractor shall pay the USCBP a \$1,000.00 (One Thousand Dollar) fine for every access seal not returned to the USCBP at the completion of the work hereunder. Final payment to the Contractor may be withheld or reduced until all access seals are accounted for and/or returned.**

***1. Definition of “U.S. Customs Security Area” applicable to all badges with a CBP seal.***

In accordance with Section 122.181 of the U.S. Customs Regulations, Subpart S (19 CFR 122.181), the term “U.S. Customs Security Area” means the Federal Inspection Services (FIS) area which is designated for processing international passengers, crew, their baggage and effects arriving from or departing to foreign countries. The FIS area includes the aircraft jetways and ramp area, and other restricted areas as designated by the U.S. Customs Port Director. The following describes applicable U.S. Customs Security Zones at Logan International Airport:

ZONE 1 – Encompasses the entire Federal Inspection Service area, including the jetways and aircrafts when international passengers and/or crew are present. (Red seals required/black seals NOT authorized)

ZONE 2 – Encompasses the international ramp area. This includes the jetways and aircrafts only after international passengers and/or crew have deplaned **and** cleared the jetway. (Red seals or black seals required)

With the exception of Federal, uniformed State and local law enforcement, and aircraft passengers or crew, all persons located at, operating out of, or employed by any airport accommodating international air commerce (including its tenants and/or contractors) must openly display an approved U.S. Customs seal issued by the USCBP Security

Office.

If the Contractor or any of its employees, subcontractors, suppliers, agents, vendors, or materialmen fails to comply with any of the USCBP regulations applicable to the U.S. Customs Security Area at Logan International Airport, the principal and surety on the U.S. Airport Customs Security Area bond may be held liable for liquidated damages in the amount of \$1,000 per violation.

2. *U.S. Customs Airport Security Bond Provisions*

The Contractor shall in accordance with CFR Title 19, Section 122.182 secure an Airport Customs Security Area bond with a surety company holding a certificate of authority acceptable for issuing federal bonds. Each bond shall be secured for a minimum of \$25,000.00 (Twenty-Five Thousand Dollars), depending on the number of employees who will require a U.S. Customs access seal. Before the required access seal is issued by the USCBP, the Contractor will be liable for liquidated damages to the USCBP for any violations of the U.S. Customs Security Area requirements. No applications for U.S. Customs access seals, or requests for U.S. Customs temporary badges or seals (described below), will be processed until the Contractor has secured a bond in accordance with the aforementioned requirements.

The Contractor may not seek additional compensation from the Authority or its representatives for any federal bonding requirements, the cost of penalties incurred as a result of failure to return a U.S. Customs access seal, or any charges or losses incurred that are incidental to payment withholding resulting from the above.

3. *Temporary U.S. Customs Access Seals*

When an approved U.S. Customs access seal is required under 19 CFR 122.182(a), and the U.S. Customs Port Director determines that the application cannot be administratively processed in a reasonable period of time, the Contractor may, upon written request, be issued a temporary U.S. Customs access seal for the employee in question. The Contractor must satisfy the U.S. Customs Port Director that a hardship will result if the request is not granted. Surety on the Airport Customs Security Area bond as required by 19 CFR 122.182(c) may be waived at the discretion of the U.S. Customs Port Director, but only for the period of the temporary U.S. Customs access seal and its renewal period. This seal will be valid for a period deemed necessary, at the discretion of the U.S. Customs Port Director, and may be extended if the circumstances remain the same.

Persons who require temporary access to the U.S. Customs Security Area may obtain a U.S. Customs access seal valid for not more than thirty (30) days. Official visitor access seals will be valid for the day of issuance only. Access seals for both temporary and official visitors are renewable for periods equal to their original periods of validity. **Temporary access seals WILL NOT be issued to applicants waiting for permanent seals.** The request for temporary access must be made in advance and in writing.

The Contractor will be responsible for the timely return of all temporary U.S. Customs access seals. The applicant may be required to submit fingerprints. If required, the Federal Bureau of Investigation user fee for conducting fingerprint checks and the U.S. Customs administration-processing fee must be tendered at the time of application.

4. *Quarterly Reporting Requirement*

In accordance with Subsection 122.184(c), the Contractor shall submit (a) quarterly reports to the USCBP Security Office on the first day of January, April, July and October in the form required under said Subsection, and (b) a separate report setting forth any additions or deletions since the last quarterly report in the form required under said Subsection. The Contractor is responsible for the certification and maintenance of said reports and other documents as required under Subsections 122.181 and 122.189. Failure to submit these reports or to adhere to the aforementioned reporting requirements can result in liquidated damages against the Contractor's security bond.

5. *Additional Information*

Additional information concerning access to the U.S. Customs Service Security Area at Logan International Airport, and these and other requirements pertinent thereto, can be obtained from the USCBP Security Seal Coordinators, (617) 568-1810.

# EXHIBIT H

## BUILDING INFORMATION MODELING EXHIBIT

### I. GENERAL

#### A. Purpose of Exhibit.

This Building Information Modeling Exhibit (“Exhibit”) provides a binding roadmap for the future development of the protocols necessary to establish the expected Level of Development (“LOD”) of Model Elements for the Project at various milestones throughout the Project’s design and construction. It is intended that such protocols will be memorialized in the Project’s Building Information Modeling Execution Plan (“BIMxP”), which will be developed soon after execution of the Agreement to which this Exhibit is appended. The BIMxP will be updated in accordance with the requirements contained therein.

#### B. Application of Exhibit.

This Exhibit is a Contract Document and is intended to supplement both the design services agreement (“Design Agreement”) between the Massachusetts Port Authority (“Owner”) and the Owner’s Prime Design Consultant (“Designer”) as well as the construction services agreement (“Construction Agreement”) between Owner and its General Contractor or Construction Manager (collectively “Constructor”). It is also intended that this Exhibit will apply to all Project Participants who receive Digital Data throughout the Project’s development. Project Participants may be required to verify that they have incorporated this Exhibit into their respective agreements and have likewise agreed to the most recent version of the Project’s BIMxP.

In the event a Party (the “Failing Party”), fails to incorporate this Exhibit into its agreement(s) with any other Project Participant, the Failing Party agrees, to the extent permitted by law, to defend, indemnify and hold harmless all other Project Participants and Third-Parties who sustain loss or damage as a direct result of the Failing Party’s failure to incorporate this Exhibit into said agreement(s), provided that the injured party: (1) was not aware of the existence of this Exhibit, and (2) used the Digital Data in a reasonable manner.

#### C. Third-Party Beneficiary.

Each Project Participant that uses Digital Data on the Project is hereby declared an intended third-party beneficiary of the express obligation of all Project Participants to incorporate this Exhibit and the BIMxP into each downstream contract to which the Project Participant is a party. The creation of this third-party benefit is specifically limited to the obligation of incorporation and may not be expanded to include any other right or benefit.

#### D. Effective Date of Exhibit.

This Exhibit becomes effective on the same day that the underlying agreement to which it is appended becomes effective.



**E. Conflicts.**

1. BIM Requirements: In the event there is a conflict (as to the Project's BIM requirements) by or between this Exhibit, the Design Agreement and/or the Construction Agreement or any lower tier agreements related thereto, the following provisions shall control in order of priority: the BIMxP, this Exhibit, and those provisions of the Owner's BIM Guidelines that apply to this Project, the Design Agreement or Construction Agreement (as applicable).

2. Design or construction obligations unrelated to BIM: In the event there is a conflict (as to the design or construction obligations under the Contract Documents) that does not relate to the BIM obligations described above, the underlying contract (Design Agreement or Construction Agreement) as applicable shall apply.

**F. Definitions.**

Any term not expressly defined herein is defined in the Glossary contained in the Owner's BIM Guidelines.

**II. RESPONSIBILITY FOR MODEL DEVELOPMENT**

**A. General**

This section memorializes the Model(s)' legal status as a Contract Document, describes how the Model(s) are to be developed during the design and construction phases, allocates responsibility for Model content and coordination among the Project Participants and assigns responsibility for detecting and correcting errors.

**B. Model's Legal Status.**

The Prime Consultant's Design Model shall function as the Project's primary "Contract Document" and may be supplemented with other materials specifically identified as "Contract Documents" in the Construction Agreement and the Design Agreement. It is anticipated that the Constructor and its Subcontractors may use Digital Data from the Design Model to develop several subsidiary construction models or such other uses as described in the BIMxP. Any subsidiary models developed by the Constructor or its team shall be for the Constructor's own benefit and none of the Constructor's models shall be considered Contract Documents.

**C. Responsibility for Model Content & Coordination among the Project Team.**

1. Designer's Responsibility: The Designer retains ultimate responsibility for the Design Model's content as well as its development throughout the Project's entire design and construction. These responsibilities are non-delegable. The Designer shall further be responsible for incorporating all appropriate Digital Data relating to the design's development into the Design Model. The Designer will decide all issues involving design intent and will be responsible for coordinating the design efforts of its own subconsultants and integrating *design* comments from Owner.

2. Owner's Responsibility: Owner shall be responsible for and decide all issues involving the LOD for the various Model Elements.

3. Constructor's Responsibility: The Constructor will be responsible for coordinating the construction efforts of its own subcontractors and vendors (and integrating *construction* comments from Owner). The Designer will update the Architectural Discipline Model with Construction

Information that it receives from the Constructor at intervals prescribed in the BIMxP. (For purpose of this obligation, the term “Construction Information” includes, but is not limited to the identification, location and description of element properties of the Project’s architectural assets.) The Constructor will ensure that the format of the Digital Data it provides to the Designer complies with the transfer protocols contained in the BIMxP.

**D. Responsibility for detecting & correcting errors and revising the Model.**

1. Design issues: The Designer shall be responsible for detecting and remedying interferences by and between the Design Model and the Discipline Model(s) including any designs developed by consultants hired separately by the Owner. Once a solution is developed, the Designer shall promptly revise the Model.

2. Construction issues: The Constructor will be responsible for detecting and remedying interferences by and between the Design Model and the Trade Model(s) including any construction coordination issues with the Owner. Once a solution is developed, the Constructor shall promptly coordinate any revisions to the Model with the Designer.

**E. Deadlines for Model delivery**

The BIMxP will contain a schedule for the Model’s delivery (the “Model Delivery Schedule”). The Model Delivery Schedule identifies the purpose and the LOD of the Model (and/or individual Model Elements) and the intermediate and final deadline(s) for delivering each to Owner for review and approval. It is anticipated that the Designer will furnish Owner with a copy of the Model at the end of the following phases: Criteria Definition Phase, Design Phase, Coordination Phase, Implementation Phase and Handover Phase. It is likewise acknowledged that the date for each deadline (as well as the LOD designations themselves) may be subsequently amended or modified in the BIMxP. However, the Designer needs a baseline schedule in order to price its efforts. Thus to the extent the BIMxP subsequently modifies the original Model Delivery Schedule and such modifications impact the Designer’s initial pricing assumptions, the Designer may be entitled to additional compensation.

**F. Owner’s review and input**

Based upon the Designer’s submittals as described above, Owner shall review and provide comments to the Designer and/or Constructor (depending upon the nature of Owner’s comments) in a timely manner. The Designer and/or Constructor shall take all necessary and reasonable steps to address such comments. Based upon the input of all concerned, and with Owner’s approval, the Designer shall revise the Model as soon as reasonably possible.

**G. Standard of Care**

The Designer shall perform its professional design services in accordance with the Standards of Performance described in the Design Agreement. With respect to the performance of the Designer’s Model Development services, the Designer shall, at a minimum, conform to the requirements in this BIM Exhibit, the Guidelines as well as the high standards of care and practice exercised by such persons engaged in performing such services in the greater Boston, MA metropolitan area regardless as to whether or not such services are performed by a design professional licensed under the laws of the Commonwealth of Massachusetts.

#### **H. Model Reliance**

Inasmuch as the Design Model is a Contract Document, this BIM Exhibit does not expand or reduce a Project Participant's right to rely upon the Design Model.

#### **I. Owner furnished information**

This BIM Exhibit does not expand or reduce a Project Participant's right to rely upon information furnished by the Owner.

### **III. RESPONSIBILITY FOR MODEL OWNERSHIP**

#### **A. General**

This section confirms that the Owner owns all legal rights to the Model(s) and recites the terms of a specific license for its use. This section likewise instructs Project Participants on the limits of, and where to find a list of authorized Model uses. This section further provides for indemnification of those individuals harmed by the Model's unauthorized use.

#### **B. Model Ownership**

The Parties agree that the Owner owns and hereby retains all legal rights of ownership (including both statutory and common law copyright) and title to the Model and/or Model Elements and all other ancillary Project materials (electronic or otherwise) developed or prepared specifically for the Project by the Project's primary Architect and/or Engineer, their subconsultants and all other Project Participants. Nothing contained in this Exhibit shall alter, diminish or be construed as a waiver by the Owner of such ownership rights.

The mere act of transmitting Digital Data or Confidential Digital Data does not convey any ownership right or legal interest in such data or in the software used to generate such data. Unless otherwise granted in a separate license, the Party receiving Digital Data or Confidential Digital Data (other than the Owner), may only use such data to design, construct, maintain, alter and/or add to the Project consistent with the terms of this BIM Exhibit, and nothing contained herein conveys any other right to use such data.

#### **C. Owner's license to Project Team**

The Owner, as owner of all intellectual property rights associated with the Model(s) and/or Model Element(s) both at common law and by statute, hereby grants to the Project's primary Architect and/or Engineer and Constructor and their respective prodigy, a revocable, non-exclusive, non-assignable, limited license to use the Model(s) and/or Model Element(s) and other relevant ancillary Project materials (electronic or otherwise) solely and exclusively to perform services for, or construction of the Project in accordance with the terms and conditions of the Agreement.

#### **D. Authorized Use**

The BIMxP lists the Authorized BIM Uses and LOD of the Model(s) and/or Model Element(s) at defined Project milestones.

#### **E. Unauthorized Use**

If a Party uses a Model or Model Element in a way that is inconsistent with the Authorized Uses identified in the BIMxP or not expressly authorized herein, such use shall be considered an Unauthorized Use and shall be at that Party's sole risk and without liability to any other Project Participant or Third-Party.

In the event a Project Participant or Third-Party sustains loss or damage as a direct result of a Party's Unauthorized Use of a Model(s) or Model Element(s) (such Party hereinafter referred to as an "Unauthorized Party User"), the Unauthorized Party User agrees, to the extent permitted by law, to defend, indemnify and hold harmless all other Project Participants and Third-Parties who sustain loss or damage as a result of the Unauthorized Party User's Unauthorized Use, provided that (a) the injured party was unaware that the Unauthorized Party User's use was unauthorized, and (b) the injured party's reliance upon such Model(s) or Model Element(s) was reasonable.

### **IV. RESPONSIBILITY FOR MODEL MANAGEMENT**

#### **A. General**

This section describes the Parties' administrative and management responsibilities throughout the Model(s)' development. As such, this section provides for situations when the Model is being developed at either a central location (as furnished by or agreed to by the Owner), or remotely where Project Participants are contributing to the Model's development in a virtual environment. This section also addresses the Parties' obligations to manage Digital Data when faced with a Force Majeure event.

#### **B. Co-Location**

To the extent the Owner desires that the Project Team be centrally located at some point during the Project's development ("Co-Location"), the Owner will provide and manage the facility and furnish all necessary utilities (electricity, internet access, water, heating and cooling) for the facility's operation. The Owner will not reimburse the Designer for the costs of hardware and software technology used to develop the Model. Additionally, the labor cost to operate and maintain the computer servers and the network upon which the Model is being created will rest with the Designer. The Designer shall also assume responsibility for the computer network's security and integrity (with respect to unauthorized access, confidentiality and interoperability).

#### **C. Virtual Network**

To the extent the Owner desires that members of the Project Team operate remotely in a virtual environment ("Virtual Network"), the Owner will not reimburse the Designer for the costs of hardware and software technology used to develop the Model. Additionally, the labor cost to operate and maintain the computer servers and the network upon which the Model is being created will rest with the Designer. The Designer shall also assume responsibility for the computer network's security and integrity (with respect to unauthorized access, confidentiality and interoperability).

#### **D. Force Majeure**

Notwithstanding the definition or application of a Force Majeure as such term is contained in the underlying Agreement to which this BIM Exhibit is attached, a Force Majeure is (for purposes of the Parties' duties, responsibilities and obligations for Model Development, Model Management and the maintenance of Digital Data), an event that is not within the reasonable contemplation and/or

control of either Party. A Force Majeure shall not include a change in industry circumstances that have only an indirect impact upon the Project.

A Force Majeure event may result in impacts to, or loss of Digital Data from viruses, software failures, computer hacking, flooding, etc. To the extent a Force Majeure event impacts the Parties' duties, responsibilities and obligations for Model Development, Model Management and/or the maintenance of Digital Data, and further provided that the Designer and/or Constructor (as applicable) have taken all reasonable steps in order to avoid and/or mitigate the impact of such circumstance(s), the Owner will absorb the risk of all time and Project delays associated with a Force Majeure event and the Designer or Constructor (as applicable) will be responsible for and absorb all costs necessary to remedy the Force Majeure's impacts. The Designer and/or Constructor (as applicable) may elect to manage this risk through insurance, but will nevertheless be responsible for whatever remedial actions are necessary to address the consequences of a Force Majeure.

**E. No Impact upon risks already defined in the Parties' Underlying Agreement**

Notwithstanding the order of precedence for resolving any conflicts by and between the various Project materials described in Article I(E), nothing contained herein shall impair, limit, modify or impact any allocation of risk (i.e.: Consequential Damages) that is specifically addressed in the underlying Agreement to which this BIM Exhibit is attached.

**F. Archiving**

Subsequent to Final Completion of the Project, the Designer shall be responsible for archiving all Digital Data in accordance with the obligations of its profession and the underlying Agreement. To the extent such obligations do not specifically pertain to the archiving of Digital Data, the protocols for retaining paper records shall apply.

The Designer's obligations herein likewise include the duty to maintain the Project's Digital Data in an updated, accessible and readable format for a period of five (5) years from Final Completion. This obligation also includes the duty to convert the Project's Digital Data into a format compatible with any subsequently developed technology that might render the Project's existing Digital Data obsolete. The obligations herein survive the completion, termination or expiration of the underlying Agreement.

**G. Record Model**

Upon Substantial Completion of the Project, the Constructor is to provide the Designer with As-Built information in accordance with the requirements of the BIMxP. The Designer is required to verify the information in accordance with the requirements and standards in the underlying Designer Agreement.

**H. Software upgrades**

Upon receiving authorization to commence their respective scopes of work, the Designer and the Constructor shall each represent to the Owner in writing that the software platform upon which the Model is to be developed is based upon the most recent version available. To the extent the Model's software platform is upgraded during the course of the Project's development, the Owner shall have the right (but not the obligation) to order all Project Participants to upgrade their respective platforms (at no cost to the Owner) in order to comply with the most recent version available. Responsibility to

coordinate any such upgrades shall be on the Designer and the Constructor for their respective teams (as applicable).

**I. Governmental Approval of Model Drawings**

The Designer shall produce printed paper drawings from the Model in .pdf format in order for the Constructor to obtain any necessary permits, approvals or government authorizations. Upon request, the Designer shall also prepare an authentication (in a form prescribed by the Owner) verifying that the drawings are a true and accurate two-dimensional representation of the Model.

**J. Signing and Sealing Model**

As required by the BIMxP.

**K. Standard of Care**

The Designer shall perform its professional design services in accordance with the Standards of Performance described in the Design Agreement. With respect to the performance of the Designer's Model Management services, the Designer shall, at a minimum, conform to the requirements in this BIM Exhibit, the Guidelines as well as the high standards of care and practice exercised by such persons engaged in performing such services in the greater Boston, MA metropolitan area regardless as to whether or not such services are performed by a design professional licensed under the laws of the Commonwealth of Massachusetts.

**V. RESPONSIBILITY FOR MAINTENANCE OF DIGITAL DATA**

**A. General**

This section describes the warranties that a Project Participant provides merely by transmitting Digital Data to another Project Participant. These warranties pertain to the right to possess such information and transmit same to others. The section also addresses the need to keep Confidential Digital Data confidential.

**B. Warranty of authority to transmit Digital Data.**

The transmission of Digital Data constitutes an express warranty by the Party transmitting such data that it has legal permission to possess and transmit the Digital Data in accordance with the Authorized Uses described herein and in accordance with the BIMxP.

**C. Confidential Digital Data.**

1. Confidential Digital Data: Confidential Digital Data is digital data expressly defined by the Owner as confidential. The transmission of Confidential Digital Data constitutes an express warranty by the Party transmitting such data that it is authorized and legally permitted to transmit the Confidential Digital Data in accordance with the Authorized Uses described herein and in Owner's BIMxP. The Party receiving Confidential Digital Data shall keep such data confidential and shall not disclose it to any other person or entity except as provided below.

The Party receiving Confidential Digital Data may disclose such data only as required by law or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity. Such Party may also disclose the Confidential Digital Data to its employees, consultants or contractors in order to perform services or work solely and exclusively for the Project, provided that such employees, consultants and contractors are likewise subject to the confidentiality

restrictions set forth herein. In the event a Party in possession of Confidential Digital Data receives a subpoena seeking the production of such data, it shall immediately notify the Owner of the existence of such subpoena and give the Owner an opportunity to respond to the subpoena before releasing any such data.

2. Sensitive Security Information: Sensitive Security Information (“SSI”) is defined by 49 USC §1520. The management and handling of SSI is addressed in the BIMxP and underlying Design Agreement and Construction Agreement (as appropriate).

## **VI. BIM EXECUTION PLAN (“BIMxP”)**

### **A. General**

This section begins with a statement confirming that the Project’s BIM Execution Plan is not a Contract Document. Inasmuch as the BIMxP is likely to change as the Project develops, this section also describes the BIMxP’s evolution from a standard Owner template to a robust work plan with input from key Project Participants. The section concludes with a list of topics that will be addressed in the BIMxP once complete.

### **B. BIMxP Contract Status.**

The BIMxP is not a Contract Document. Nevertheless, the Parties are expected to comply with the requirements described therein as each Project Participant is relying upon all other Project Participants’ uniform adherence therewith.

### **C. Process for Development.**

1. BIMxP Template: Soon after being retained, the Designer and the Owner will jointly develop the initial draft of the Project’s BIMxP using the Owner’s BIMxP Template as a starting point. If the Designer believes that the protocols created in a subsequently developed BIMxP represent a change in the scope of its services and believes that such change warrants an adjustment in compensation, contract sum, schedule or contract time, the Designer is required to notify the Owner in writing in accordance with the terms of the Design Agreement.

2. Amendments to BIMxP: The BIMxP will likely be updated on a regular basis. The Owner anticipates that there will be situations in which a party (who is already under contract) will view post-contract amendments to the BIMxP as a change of scope. In order to address this concern, any party alleging any such impact(s) must, as a condition precedent to its ability to recover on any claim relating thereto, provide written notice in accordance with the requirements herein. A failure to provide the required notice shall result in a waiver of any claim(s) for adjustments in compensation, contract sum, schedule or contract time as a result of the subsequently developed protocols.

#### **D. Elements of the BIMxP**

The Modeling protocols to be addressed in the BIMxP shall:

1. Identify the Discipline Model Coordinator, Prime BIM Manager and when appropriate, the Construction BIM Manager and confirm their respective responsibilities per the roles described in the BIM Guidelines;
2. Define the various Authorized Uses and LOD for each Model and/or Model Element at prescribed Project milestones;
3. Identify the Project's construction classification systems per Owner's BIM Guidelines;
4. Define the process (and intervals) by which Project Participants will exchange and share the Model(s) and/or Model Element(s);
5. Define the process by which the Project Participants will identify, coordinate and resolve changes and updates to the Model(s) and/or Model Element(s); and
6. Include any other topics as may be required by the Owner.
7. Identify Technical Requirements, computer platform, software, etc.
8. Transmission protocols and procedures (CDs, e-mail, etc.)
9. Electronic signatures & stamps
10. Encryption, File formats, naming conventions
11. Dimensional accuracy, Units
12. Origin point, Coordinate system
13. Back-up, Format for exchange of As-Built information
14. SSI Data Management (as necessary)



# EXHIBIT I

## Compliance with Civil Rights and Non-Discrimination Provisions

Federal laws and regulations require that recipients of federal assistance, such as the Authority, include the following contract provisions in this Agreement. The Consultant agrees to include all of these provisions in any subleases or subcontracts under this Agreement.

### GENERAL CIVIL RIGHTS PROVISIONS

Consultant agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the Consultant and subconsultants from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

### TITLE VI CLAUSES FOR COMPLIANCE WITH NON-DISCRIMINATION REQUIREMENTS

#### Compliance with Nondiscrimination Requirements:

During the performance of this contract, the Consultant, for itself, its assignees, and successors in interest (hereinafter referred to as the "Consultant"), agrees as follows:

1. **Compliance with Regulations:** The Consultant (hereinafter includes Consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The Consultant, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Consultant will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the Consultant for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Consultant of the consultant's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

4. **Information and Reports:** The Consultant will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a consultant is in the exclusive possession of another who fails or refuses to furnish the information, the Consultant will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a Consultant's noncompliance with the non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
- a. Withholding payments to the Consultant under the contract until the Consultant complies; and/or
  - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The Consultant will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. The Consultant will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Consultant becomes involved in, or is threatened with litigation by a subconsultant, or supplier because of such direction, the Consultant may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the Consultant may request the United States to enter into the litigation to protect the interests of the United States.

#### **TITLE VI LIST OF PERTINENT NONDISCRIMINATION ACTS AND AUTHORITIES**

During the performance of this contract, the Consultant, for itself, its assignees, and successors in interest (hereinafter referred to as the "Consultant") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 et seq.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 et seq.) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100); and
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC 1681 et seq.).

## **EXHIBIT J**

### **LEAN DESIGN AND CONSTRUCTION**

#### **I. GENERAL**

##### **A. Application of Exhibit**

This Exhibit is a Contract Document and is intended to supplement (1) the Consultant Agreement between the Massachusetts Port Authority (“Authority”) and the Authority’s Prime Design Consultant (“Consultant”) and (2) the Preconstruction Services Agreement and the Construction Services Agreement between the Authority and its Construction Manager (“CM”). References herein to the “Project Team” refers to representatives of the Authority, the Consultant, and the CM (as applicable depending on the phase of the Project).

##### **B. Lean Project Delivery**

The Authority expects that the Project will benefit by implementing Lean Project Delivery, which includes:

- 1) collaboration among all members of the Project Team;
- 2) planning and managing the Project as a network of commitments across organizational boundaries;
- 3) optimizing the Project as a whole, rather than any particular piece; and
- 4) promoting continuous improvement throughout the life of the Project.

The Authority intends that the Project Team, to the maximum extent possible, utilize Lean Project Delivery to facilitate design and construction of the Project. Specific Lean Tools available to the Project Team in support of Lean Project Delivery are set forth in this Exhibit.

##### **C. Lean Deployment Plan**

This Lean Design and Construction Exhibit provides the basis for development by the Project Team of a Lean Deployment Plan (“LDP”) for the Project. The LDP shall be developed by the Project Team within thirty (30) days after execution of the Agreement to which this Exhibit is appended. The LDP shall be updated, at a minimum, at the start of each Project phase (Project Definition, Preliminary Design, Final Design, and Construction), using a template that the Authority will supply to each Project Team. The Project LDP and all updates shall be subject to Authority approval.

The Designer and CM shall provide personnel with knowledge and experience of the Lean Tools selected for inclusion in the LDP. The Designer and CM each shall designate a person as its Lean representative for purposes of implementing, tracking, and updating the LDP.

## II. REQUIRED LEAN TOOLS

### A. Project Planning and Tracking Tools

- 1) Last Planner® System: For planning its activities and deliverables the Project Team shall use the framework of the Lean Construction Institute's Last Planner® System ("LPS") consisting of: collaborative development of a milestone schedule; phase or progression production plans; "make-ready" look ahead plans; weekly work plans; maintenance of variance and constraint logs; and methods for recording, measuring, and improving the reliability of Project planning and production.
- 2) Pull Planning Approach: Following the LPS framework, the Project Team shall use a pull planning approach to planning, scheduling, and tracking its work to ensure that preceding activities are not started sooner than is needed to assure the continuous performance of subsequent activities. Where the work of one Project Team member is dependent upon the prior performance of another Project Team member, the Project Team member whose work is dependent shall request of, and receive from, the prior performer a reliable commitment as to when the precedent work shall be finished. As part of the pull planning process, appropriate Project Team members shall agree on the criteria for hand-off and acceptance of items of work.
- 3) LPS Guide: The Project Team shall follow the *Massport Last Planner® System Guide*, including the following specific elements:
  - a) Master Schedule Alignment: The Project Team shall collaboratively review the Milestone Schedule to align the team on the major milestones, major phases of work, basic dependencies and durations, and major constraints or risk factors. The Milestone Schedule Alignment shall also include identification of pull planning phases and an action plan for initiating the Last Planner® System on the Project. Master Schedule Alignment update sessions shall be held periodically (usually prior to the beginning of new major phases of work).
  - b) Phase Production Planning: Phase planning shall be based on the collaborative efforts of all those performing work during a given period and shall indicate when work should be done to meet milestone dates.
  - c) Make-Ready/Look Ahead Planning: Make-ready look ahead plans shall be developed by the Project Team, identifying (i) each item of work that can be performed and completed during the given planning period; (ii) whether factors exist that would constrain performance and completion as planned; and (iii) the actions to be taken to negate or mitigate any such constraints. The Project Team shall maintain a Constraint Log to track constraints to planned activities and an action plan (what, when, who) for Constraint removal or resolution.
  - d) Weekly Work Planning: Weekly work plans shall be developed by the Project Team members to show the day on which specific activities will be completed. The weekly work plans shall indicate whether an assignment has been completed

as scheduled and, if not, a reason shall be assigned for variance from the plan. The Project Team shall maintain a Variance Log and take action to address Variances so that they do not impede the production plan in the future. The Project Team also shall record the overall and weekly Plan Percent Complete (PPC) for the Project and display this for management review.

- 4) Project Dashboard: The Project Team shall weekly submit to the Authority appropriate information from LPS in the Design and Construction Dashboards, as provided in the *Massport Last Planner® System Guide*.

## **B. Other Required Lean Tools**

- 1) Conditions of Satisfaction (CoS): At the project level, CoS are measurable statements that tell the Project Team what tests the Project must pass to be a success. The Project Team shall develop project-level CoS, including using stakeholder engagement to identify stakeholder CoS. Project-level CoS also should be used by a project team to develop its LDP so that the Lean Tools it selects support delivery of the project-level CoS. The Project Team should update its project-level CoS, at a minimum, at the beginning of each Project phase (Project Definition, Preliminary Design, Final Design, and Construction).

At an individual activity level, a CoS is a detailed description by a customer of an activity specifying all requirements that must be satisfied by the performer in order for the customer to accept that he or she received exactly what was wanted, when it was needed. Individual activity-level CoS should be used as part of the LPS approach described in Section II (A) above.

- 2) A3 Process and Report: The A3 Process has six main elements that follow one another in a progressive and logical sequence:
  - a) problem statement;
  - b) background/current conditions;
  - c) future state desired (usually listed as CoS relating to the A3 subject matter);
  - d) root cause (gap) analysis;
  - e) proposed actions/implementation plan; and
  - f) performance metrics and follow up steps to review results and make adjustments as needed.

An A3 Report is a one-page report prepared on an 11 x 17 sheet of paper that can be used for (1) collaborative problem solving/decision-making, (2) strategy development, or (3) reporting. The Authority will furnish the Project Team with an A3 Report template to be used for the Project. All information in a A3 Report should be relatively simple, providing only what is needed for decision making (detailed backup information and data can be provided by hyperlinks). As part of its LPS approach, Project Teams shall consider

whether the A3 Process can be used to support decision-making that is part of the Project's production planning.

- 3) Choosing by Advantages (CBA): Project teams shall consider the use of CBA as a decision-making system for determining and documenting the "best value" decision by comparing the advantages of each option. For example, CBA can be used as a decision-making tool in the A3 Process. CBA's five phases of decision-making are:
  - a) Stage-setting: establish the purpose and context for the decision
  - b) Innovation: formulate an adequate set of alternatives
  - c) Decision-making: choose the alternative with the greatest total importance of advantages
  - d) Reconsideration: change the decision if it should be revised or can be improved on
  - e) Implementation: make the decision happen, adjust as needed, and evaluate the process and results
- 4) Lean/BIM Coordination: To the extent possible, Lean and BIM shall be coordinated so that Lean Tools support the use of BIM, and BIM supports the use of Lean Tools. Both the LDP and the BIMxP shall expressly describe how Lean and BIM will be coordinated by the Project Team to maximize the value of each set of tools.
- 5) Lean SOPs: The Project Team shall implement the Authority's Lean SOPs:
  - a) Expected Outcomes Agendas for meetings/work sessions and
  - b) Continuous Improvement (Plus/Deltas and Periodic Retrospectives).

The LDP should describe how these SOPs will be integrated into the Project Team's implementation of Lean Tools.

### **III. Other Lean Tools (Optional)**

- 1) Big Room Approach: Project Teams may use a Big Room Approach to provide a platform for the Project Team to collaborate on, innovate, and implement Project planning and production. The Big Room Approach can range from physical co-location, to periodic Project Team in-person sessions, to virtual sharing/coordination. If a Big Room Approach is used, it should include a written Big Room Management Plan, and the Project Team should designate a Big Room Manager to plan and oversee the Big Room Approach.
- 2) Focus Groups: A Focus Group is a cross-functional and cross-organizational team of designated representatives of the Project Team collaborating on the design, development, assessment, or implementation of major Project components, systems, or deliverables. In particular, during the design phase the Project Team should consider using Focus Groups to develop recommendations that meet CoS and address cost/schedule constraints of the

Project. If used, each Focus Group should have a designated Focus Group Leader who is responsible for planning and managing the activities of the Focus Group, including reporting periodically to the project management team (typically the PM level for the Authority, Consultant and CM) tracking all project metrics (scope, budget, and schedule). Immediately after a CM is on board, the CM should be integrated into Focus Groups to provide real time constructability, cost and schedule inputs.

- 3) Target Value Design (TVD): TVD is a design methodology that requires Project values, cost, quality, schedule, and constructability to be integrated components of basis of design criteria. TVD uses cost targets to drive innovation and reduce waste in designing a project that provides optimum value to the Authority. If TVD is used, the Project Team should develop a TVD plan that sets out the strategies for value analysis, including carrying multiple design options forward using Set-based Design and deferring decisions until the Last Responsible Moment to maximize the value of each Project element. Cost and schedule analysis should be the byproduct of the continuous TVD process, including the CM and trade/subcontractors providing ongoing cost and schedule information for portions of the work, systems, and details as they are developed or considered.
- 4) Miscellaneous Lean Tools: The Authority may, in its discretion, require the Designer and/or the CM to use other Lean Tools, such as Value Stream Mapping, Rapid Improvement Events, Visual Management, and Root Cause Analysis. Project Teams shall supply persons with knowledge of and experience in these Tools if the Authority selects them for use on any particular project.

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